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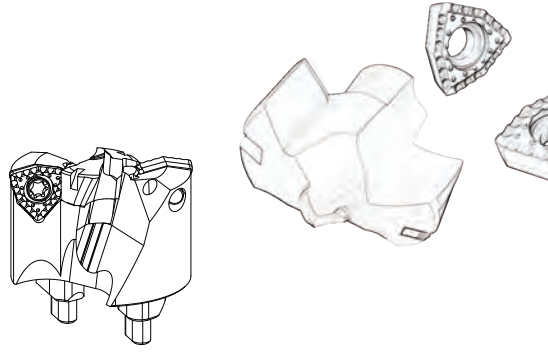


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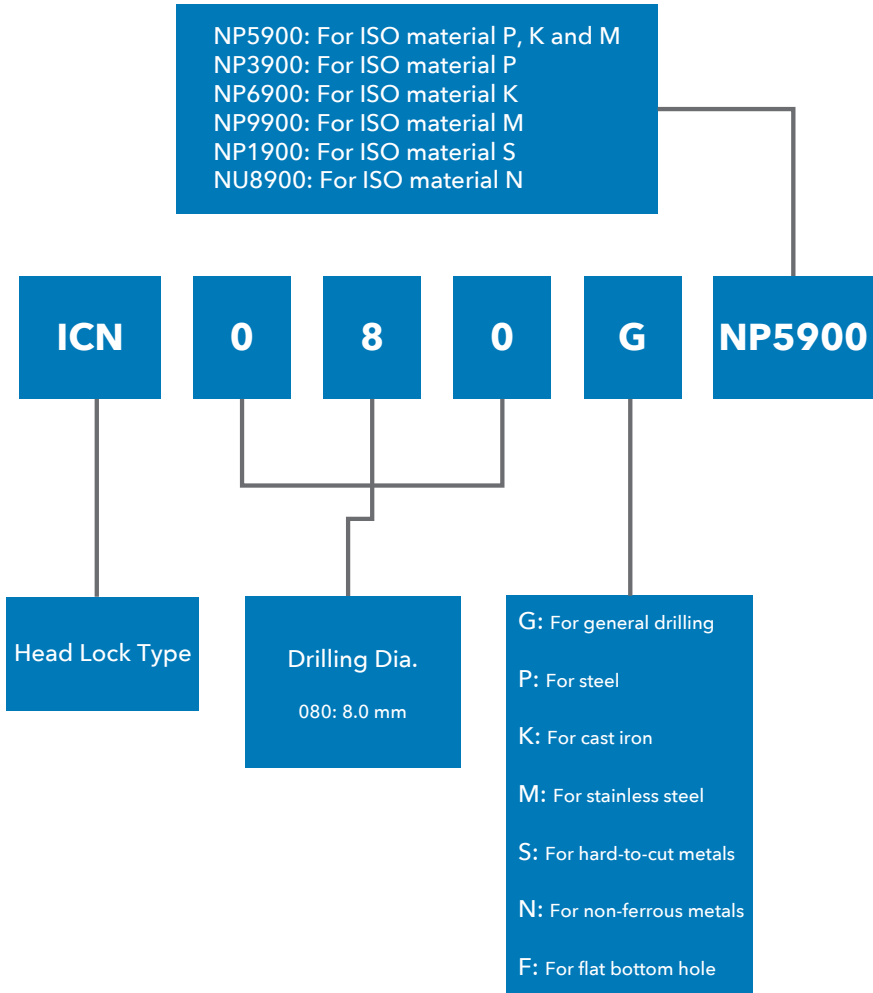
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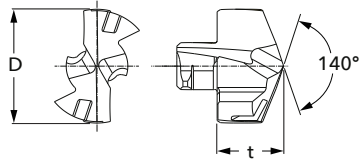
ICN Drill Head Coding System





ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-080-G	8.0	5.4	ICN080089 -12..	
ICN-081-G	8.1	5.4		
ICN-082-G	8.2	5.4		
ICN-083-G	8.3	5.4		
ICN-084-G	8.4	5.4		
ICN-085-G	8.5	5.4		
ICN-086-G	8.6	5.4		
ICN-087-G	8.7	5.4		
ICN-088-G	8.8	5.4		
ICN-089-G	8.9	5.4		
ICN-090-G	9.0	5.8	ICN090099 -12..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-091-G	9.1	5.8		
ICN-092-G	9.2	5.8		
ICN-093-G	9.3	5.8		
ICN-094-G	9.4	5.8		
ICN-095-G	9.5	5.8		
ICN-096-G	9.6	5.8		
ICN-097-G	9.7	5.8		
ICN-098-G	9.8	5.8		
ICN-099-G	9.9	5.8		
ICN-100-G	10.0	6.2	ICN100109 -16..	
ICN-101-G	10.1	6.2		
ICN-102-G	10.2	6.2		
ICN-103-G	10.3	6.2		
ICN-104-G	10.4	6.2		
ICN-105-G	10.5	6.2		
ICN-106-G	10.6	6.2		
ICN-107-G	10.7	6.2		
ICN-108-G	10.8	6.2		
ICN-109-G	10.9	6.2		

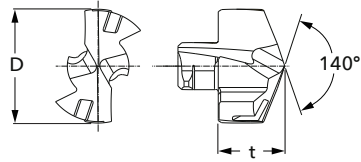
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-110-G	11.0	6.6	ICN110119 -16..	
ICN-111-G	11.1	6.6		
ICN-112-G	11.2	6.6		
ICN-113-G	11.3	6.6		
ICN-114-G	11.4	6.6		
ICN-115-G	11.5	6.6		
ICN-116-G	11.6	6.6		
ICN-117-G	11.7	6.6		
ICN-118-G	11.8	6.6		
ICN-119-G	11.9	6.6		
ICN-120-G	12.0	7.0	ICN120129 -16..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-121-G	12.1	7.0		
ICN-122-G	12.2	7.0		
ICN-123-G	12.3	7.0		
ICN-124-G	12.4	7.0		
ICN-125-G	12.5	7.0		
ICN-126-G	12.6	7.0		
ICN-127-G	12.7	7.0		
ICN-128-G	12.8	7.0		
ICN-129-G	12.9	7.0		
ICN-130-G	13.0	7.6	ICN130139 -16..	
ICN-131-G	13.1	7.6		
ICN-132-G	13.2	7.6		
ICN-133-G	13.3	7.6		
ICN-134-G	13.4	7.6		
ICN-135-G	13.5	7.6		
ICN-136-G	13.6	7.6		
ICN-137-G	13.7	7.6		
ICN-138-G	13.8	7.6		
ICN-139-G	13.9	7.6		



ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

Unit: mm

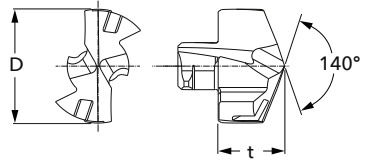
Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-140-G	14.0	8.1	ICN140149 -16-..	
ICN-141-G	14.1	8.1		
ICN-142-G	14.2	8.1		
ICN-143-G	14.3	8.1		
ICN-144-G	14.4	8.1		
ICN-145-G	14.5	8.1		
ICN-146-G	14.6	8.1		
ICN-147-G	14.7	8.1		
ICN-148-G	14.8	8.1		
ICN-149-G	14.9	8.1		
ICN-150-G	15.0	8.7	ICN150159 -20-..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-151-G	15.1	8.7		
ICN-152-G	15.2	8.7		
ICN-153-G	15.3	8.7		
ICN-154-G	15.4	8.7		
ICN-155-G	15.5	8.7		
ICN-156-G	15.6	8.7		
ICN-157-G	15.7	8.7		
ICN-158-G	15.8	8.7		
ICN-159-G	15.9	8.7		
ICN-160-G	16.0	9.3	ICN160169 -20-..	
ICN-161-G	16.1	9.3		
ICN-162-G	16.2	9.3		
ICN-163-G	16.3	9.3		
ICN-164-G	16.4	9.3		
ICN-165-G	16.5	9.3		
ICN-166-G	16.6	9.3		
ICN-167-G	16.7	9.3		
ICN-168-G	16.8	9.3		
ICN-169-G	16.9	9.3		

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-170-G	17.0	9.9	ICN170179 -20-..	
ICN-171-G	17.1	9.9		
ICN-172-G	17.2	9.9		
ICN-173-G	17.3	9.9		
ICN-174-G	17.4	9.9		
ICN-175-G	17.5	9.9		
ICN-176-G	17.6	9.9		
ICN-177-G	17.7	9.9		
ICN-178-G	17.8	9.9		
ICN-179-G	17.9	9.9		
ICN-180-G	18.0	10.5	ICN180189 -25-..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-181-G	18.1	10.5		
ICN-182-G	18.2	10.5		
ICN-183-G	18.3	10.5		
ICN-184-G	18.4	10.5		
ICN-185-G	18.5	10.5		
ICN-186-G	18.6	10.5		
ICN-187-G	18.7	10.5		
ICN-188-G	18.8	10.5		
ICN-189-G	18.9	10.5		
ICN-190-G	19.0	11.0	ICN190199 -25-..	
ICN-191-G	19.1	11.0		
ICN-192-G	19.2	11.0		
ICN-193-G	19.3	11.0		
ICN-194-G	19.4	11.0		
ICN-195-G	19.5	11.0		
ICN-196-G	19.6	11.0		
ICN-197-G	19.7	11.0		
ICN-198-G	19.8	11.0		
ICN-199-G	19.9	11.0		



ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-200-G	20.0	13.3	ICN200209 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-201-G	20.1	13.3		
ICN-202-G	20.2	13.3		
ICN-203-G	20.3	13.3		
ICN-204-G	20.4	13.3		
ICN-205-G	20.5	13.3		
ICN-206-G	20.6	13.3		
ICN-207-G	20.7	13.3		
ICN-208-G	20.8	13.3		
ICN-209-G	20.9	13.3		
ICN-210-G	21.0	13.3	ICN210219 -25..	
ICN-211-G	21.1	13.3		
ICN-212-G	21.2	13.3		
ICN-213-G	21.3	13.3		
ICN-214-G	21.4	13.3		
ICN-215-G	21.5	13.3		
ICN-216-G	21.6	13.3		
ICN-217-G	21.7	13.3		
ICN-218-G	21.8	13.3		
ICN-219-G	21.9	13.3		
ICN-220-G	22.0	14.3	ICN220229 -25..	
ICN-221-G	22.1	14.3		
ICN-222-G	22.2	14.3		
ICN-223-G	22.3	14.3		
ICN-224-G	22.4	14.3		
ICN-225-G	22.5	14.3		
ICN-226-G	22.6	14.3		
ICN-227-G	22.7	14.3		
ICN-228-G	22.8	14.3		
ICN-229-G	22.9	14.3		
ICN-230-G	23.0	14.3	ICN230239 -32..	
ICN-231-G	23.1	14.3		
ICN-232-G	23.2	14.3		
ICN-233-G	23.3	14.3		
ICN-234-G	23.4	14.3		

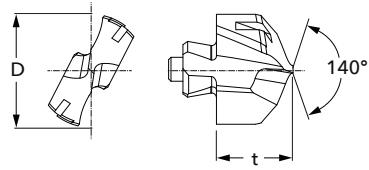
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-235-G	23.5	14.3	ICN230239 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-236-G	23.6	14.3		
ICN-237-G	23.7	14.3		
ICN-238-G	23.8	14.3		
ICN-239-G	23.9	14.3	ICN240249 -32..	
ICN-240-G	24.0	15.3		
ICN-241-G	24.1	15.3		
ICN-242-G	24.2	15.3		
ICN-243-G	24.3	15.3		
ICN-244-G	24.4	15.3		
ICN-245-G	24.5	15.3		
ICN-246-G	24.6	15.3		
ICN-247-G	24.7	15.3		
ICN-248-G	24.8	15.3		
ICN-249-G	24.9	15.3	ICN250260 -32..	
ICN-250-G	25.0	15.3		
ICN-251-G	25.1	15.3		
ICN-252-G	25.2	15.3		
ICN-253-G	25.3	15.3		
ICN-254-G	25.4	15.3		
ICN-255-G	25.5	15.3		
ICN-256-G	25.6	15.3		
ICN-257-G	25.7	15.3		
ICN-258-G	25.8	15.3		
ICN-259-G	25.9	15.3	ICN250260 -32-	
ICN-260-G	26.0	15.3		
ICN-261-G	26.1	14.5		
ICN-262-G	26.2	14.5		
ICN-263-G	26.3	14.5		
ICN-264-G	26.4	14.5		
ICN-265-G	26.5	14.5		
ICN-266-G	26.6	14.5		
ICN-267-G	26.7	14.5		
ICN-268-G	26.8	14.5		
ICN-269-G	26.9	14.5		



ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-270-G	27.0	15.5	ICN270279 -32..	
ICN-271-G	27.1	15.5		
ICN-272-G	27.2	15.5		
ICN-273-G	27.3	15.5		
ICN-274-G	27.4	15.5		
ICN-275-G	27.5	15.5		
ICN-276-G	27.6	15.5		
ICN-277-G	27.7	15.5		
ICN-278-G	27.8	15.5		
ICN-279-G	27.9	15.5		
ICN-280-G	28.0	16.0	ICN280289 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-281-G	28.1	16.0		
ICN-282-G	28.2	16.0		
ICN-283-G	28.3	16.0		
ICN-284-G	28.4	16.0		
ICN-285-G	28.5	16.0		
ICN-286-G	28.6	16.0		
ICN-287-G	28.7	16.0		
ICN-288-G	28.8	16.0		
ICN-289-G	28.9	16.0		
ICN-290-G	29.0	16.0	ICN290299 -32..	
ICN-291-G	29.1	16.0		
ICN-292-G	29.2	16.0		
ICN-293-G	29.3	16.0		
ICN-294-G	29.4	16.0		
ICN-295-G	29.5	16.0		
ICN-296-G	29.6	16.0		
ICN-297-G	29.7	16.0		
ICN-298-G	29.8	16.0		
ICN-299-G	29.9	16.0		
ICN-300-G	30.0	16.0	ICN300309 -32..	
ICN-301-G	30.1	16.0		
ICN-302-G	30.2	16.0		
ICN-303-G	30.3	16.0		
ICN-304-G	30.4	16.0		

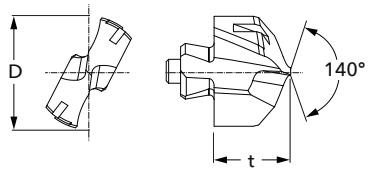
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-305-G	30.5	16.0	ICN300309 -32..	
ICN-306-G	30.6	16.0		
ICN-307-G	30.7	16.0		
ICN-308-G	30.8	16.0		
ICN-309-G	30.9	16.0		
ICN-310-G	31.0	6.0		
ICN-311-G	31.1	16.0	ICN310319 -32..	
ICN-312-G	31.2	16.0		
ICN-313-G	31.3	16.0		
ICN-314-G	31.4	16.0		
ICN-315-G	31.5	16.0		
ICN-316-G	31.6	16.0		
ICN-317-G	31.7	16.0		
ICN-318-G	31.8	16.0		
ICN-319-G	31.9	16.0		
ICN-320-G	32.0	17.5		
ICN-321-G	32.1	17.5		
ICN-322-G	32.2	17.5		
ICN-323-G	32.3	17.5		
ICN-324-G	32.4	17.5		
ICN-325-G	32.5	17.5		
ICN-326-G	32.6	17.5		
ICN-327-G	32.7	17.5		
ICN-328-G	32.8	17.5		
ICN-329-G	32.9	17.5		
ICN-330-G	33.0	18.0	ICN330339 -32..	
ICN-331-G	33.1	18.0		
ICN-332-G	33.2	18.0		
ICN-333-G	33.3	18.0		
ICN-334-G	33.4	18.0		
ICN-335-G	33.5	18.0		
ICN-336-G	33.6	18.0		
ICN-337-G	33.7	18.0		
ICN-338-G	33.8	18.0		
ICN-339-G	33.9	18.0		



ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-340-G	34.0	18.5	ICN340349	
ICN-341-G	34.1	18.5		
ICN-342-G	34.2	18.5		
ICN-343-G	34.3	18.5		
ICN-344-G	34.4	18.5		
ICN-345-G	34.5	18.5		
ICN-346-G	34.6	18.5		
ICN-347-G	34.7	18.5		
ICN-348-G	34.8	18.5		
ICN-349-G	34.9	18.5		
ICN-350-G	35.0	18.5		
ICN-351-G	35.1	18.5	ICN350359	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-352-G	35.2	18.5		
ICN-353-G	35.3	18.5		
ICN-354-G	35.4	18.5		
ICN-355-G	35.5	18.5		
ICN-356-G	35.6	18.5		
ICN-357-G	35.7	18.5		
ICN-358-G	35.8	18.5		
ICN-359-G	35.9	18.5		
ICN-360-G	36.0	19.5		
ICN-361-G	36.1	19.5		
ICN-362-G	36.2	19.5		
ICN-363-G	36.3	19.5		
ICN-364-G	36.4	19.5		
ICN-365-G	36.5	19.5		
ICN-366-G	36.6	19.5		
ICN-367-G	36.7	19.5		
ICN-368-G	36.8	19.5		
ICN-369-G	36.9	19.5		

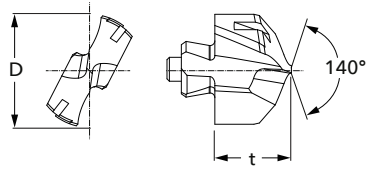
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-370-G	37.0	19.5	ICN370379	
ICN-371-G	37.1	19.5		
ICN-372-G	37.2	19.5		
ICN-373-G	37.3	19.5		
ICN-374-G	37.4	19.5		
ICN-375-G	37.5	19.5		
ICN-376-G	37.6	19.5		
ICN-377-G	37.7	19.5		
ICN-378-G	37.8	19.5		
ICN-379-G	37.9	19.5		
ICN-380-G	38.0	20.0		
ICN-381-G	38.1	20.0		
ICN-382-G	38.2	20.0		
ICN-383-G	38.3	20.0		
ICN-384-G	38.4	20.0		
ICN-385-G	38.5	20.0		
ICN-386-G	38.6	20.0		
ICN-387-G	38.7	20.0		
ICN-388-G	38.8	20.0		
ICN-389-G	38.9	20.0		
ICN-390-G	39.0	20.0	ICN390399	
ICN-391-G	39.1	20.0		
ICN-392-G	39.2	20.0		
ICN-393-G	39.3	20.0		
ICN-394-G	39.4	20.0		
ICN-395-G	39.5	20.0		
ICN-396-G	39.6	20.0		
ICN-397-G	39.7	20.0		
ICN-398-G	39.8	20.0		
ICN-399-G	39.9	20.0		



ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-400-G	40.0	21.0	ICN400409 -32-..	
ICN-401-G	40.1	21.0		
ICN-402-G	40.2	21.0		
ICN-403-G	40.3	21.0		
ICN-404-G	40.4	21.0		
ICN-405-G	40.5	21.0		
ICN-406-G	40.6	21.0		
ICN-407-G	40.7	21.0		
ICN-408-G	40.8	21.0		
ICN-409-G	40.9	21.0		
ICN-410-G	41.0	21.0	ICN410419 -32-..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-411-G	41.1	21.0		
ICN-412-G	41.2	21.0		
ICN-413-G	41.3	21.0		
ICN-414-G	41.4	21.0		
ICN-415-G	41.5	21.0		
ICN-416-G	41.6	21.0		
ICN-417-G	41.7	21.0		
ICN-418-G	41.8	21.0		
ICN-419-G	41.9	21.0		
ICN-420-G	42.0	21.0	ICN420429 -50-..	
ICN-421-G	42.1	21.0		
ICN-422-G	42.2	21.0		
ICN-423-G	42.3	21.0		
ICN-424-G	42.4	21.0		
ICN-425-G	42.5	21.0		
ICN-426-G	42.6	21.0		
ICN-427-G	42.7	21.0		
ICN-428-G	42.8	21.0		
ICN-429-G	42.9	21.0		

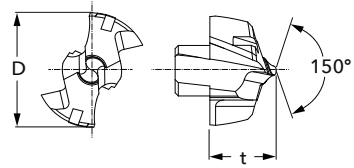
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-430-G	43.0	22.0	ICN430439 -50-..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-431-G	43.1	22.0		
ICN-432-G	43.2	22.0		
ICN-433-G	43.3	22.0		
ICN-434-G	43.4	22.0		
ICN-435-G	43.5	22.0		
ICN-436-G	43.6	22.0		
ICN-437-G	43.7	22.0		
ICN-438-G	43.8	22.0		
ICN-439-G	43.9	22.0		
ICN-440-G	44.0	22.0	ICN440450 -50-..	
ICN-441-G	44.1	22.0		
ICN-442-G	44.2	22.0		
ICN-443-G	44.3	22.0		
ICN-444-G	44.4	22.0		
ICN-445-G	44.5	22.0		
ICN-446-G	44.6	22.0		
ICN-447-G	44.7	22.0		
ICN-448-G	44.8	22.0		
ICN-449-G	44.9	22.0		
ICN-450-G	45.0	22.0		



ICN...P Drilling Head

For ICN Drills | Better \geq 5D
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-080-P	8.0	5.4	ICN080089 -12..	
ICN-081-P	8.1	5.4		
ICN-082-P	8.2	5.4		
ICN-083-P	8.3	5.4		
ICN-084-P	8.4	5.4		
ICN-085-P	8.5	5.4		
ICN-086-P	8.6	5.4		
ICN-087-P	8.7	5.4		
ICN-088-P	8.8	5.4		
ICN-089-P	8.9	5.4		
ICN-090-P	9.0	5.8	ICN090099 -12..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-091-P	9.1	5.8		
ICN-092-P	9.2	5.8		
ICN-093-P	9.3	5.8		
ICN-094-P	9.4	5.8		
ICN-095-P	9.5	5.8		
ICN-096-P	9.6	5.8		
ICN-097-P	9.7	5.8		
ICN-098-P	9.8	5.8		
ICN-099-P	9.9	5.8		
ICN-100-P	10.0	6.2	ICN100109 -16..	
ICN-101-P	10.1	6.2		
ICN-102-P	10.2	6.2		
ICN-103-P	10.3	6.2		
ICN-104-P	10.4	6.2		
ICN-105-P	10.5	6.2		
ICN-106-P	10.6	6.2		
ICN-107-P	10.7	6.2		
ICN-108-P	10.8	6.2		
ICN-109-P	10.9	6.2		

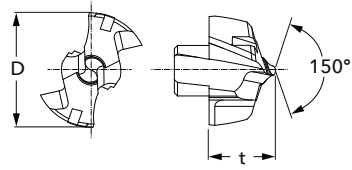
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-110-P	11.0	6.6	ICN110119 -16..	
ICN-111-P	11.1	6.6		
ICN-112-P	11.2	6.6		
ICN-113-P	11.3	6.6		
ICN-114-P	11.4	6.6		
ICN-115-P	11.5	6.6		
ICN-116-P	11.6	6.6		
ICN-117-P	11.7	6.6		
ICN-118-P	11.8	6.6		
ICN-119-P	11.9	6.6		
ICN-120-P	12.0	7.0	ICN120129 -16..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-121-P	12.1	7.0		
ICN-122-P	12.2	7.0		
ICN-123-P	12.3	7.0		
ICN-124-P	12.4	7.0		
ICN-125-P	12.5	7.0		
ICN-126-P	12.6	7.0		
ICN-127-P	12.7	7.0		
ICN-128-P	12.8	7.0		
ICN-129-P	12.9	7.0		
ICN-130-P	13.0	7.6	ICN130139 -16..	
ICN-131-P	13.1	7.6		
ICN-132-P	13.2	7.6		
ICN-133-P	13.3	7.6		
ICN-134-P	13.4	7.6		
ICN-135-P	13.5	7.6		
ICN-136-P	13.6	7.6		
ICN-137-P	13.7	7.6		
ICN-138-P	13.8	7.6		
ICN-139-P	13.9	7.6		



ICN...P Drilling Head

For ICN Drills | Better >= 5D
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-140-P	14.0	8.1	ICN140149 -16..	
ICN-141-P	14.1	8.1		
ICN-142-P	14.2	8.1		
ICN-143-P	14.3	8.1		
ICN-144-P	14.4	8.1		
ICN-145-P	14.5	8.1		
ICN-146-P	14.6	8.1		
ICN-147-P	14.7	8.1		
ICN-148-P	14.8	8.1		
ICN-149-P	14.9	8.1		
ICN-150-P	15.0	8.7	ICN150159 -20..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-151-P	15.1	8.7		
ICN-152-P	15.2	8.7		
ICN-153-P	15.3	8.7		
ICN-154-P	15.4	8.7		
ICN-155-P	15.5	8.7		
ICN-156-P	15.6	8.7		
ICN-157-P	15.7	8.7		
ICN-158-P	15.8	8.7		
ICN-159-P	15.9	8.7		
ICN-160-P	16.0	9.3	ICN160169 -20..	
ICN-161-P	16.1	9.3		
ICN-162-P	16.2	9.3		
ICN-163-P	16.3	9.3		
ICN-164-P	16.4	9.3		
ICN-165-P	16.5	9.3		
ICN-166-P	16.6	9.3		
ICN-167-P	16.7	9.3		
ICN-168-P	16.8	9.3		
ICN-169-P	16.9	9.3		

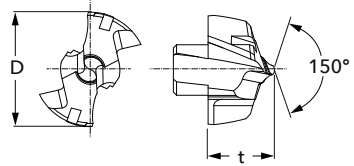
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-170-P	17.0	9.9	ICN170179 -20..	
ICN-171-P	17.1	9.9		
ICN-172-P	17.2	9.9		
ICN-173-P	17.3	9.9		
ICN-174-P	17.4	9.9		
ICN-175-P	17.5	9.9		
ICN-176-P	17.6	9.9		
ICN-177-P	17.7	9.9		
ICN-178-P	17.8	9.9		
ICN-179-P	17.9	9.9		
ICN-180-P	18.0	10.5	ICN180189 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-181-P	18.1	10.5		
ICN-182-P	18.2	10.5		
ICN-183-P	18.3	10.5		
ICN-184-P	18.4	10.5		
ICN-185-P	18.5	10.5		
ICN-186-P	18.6	10.5		
ICN-187-P	18.7	10.5		
ICN-188-P	18.8	10.5		
ICN-189-P	18.9	10.5		
ICN-190-P	19.0	11.0	ICN190199 -25..	
ICN-191-P	19.1	11.0		
ICN-192-P	19.2	11.0		
ICN-193-P	19.3	11.0		
ICN-194-P	19.4	11.0		
ICN-195-P	19.5	11.0		
ICN-196-P	19.6	11.0		
ICN-197-P	19.7	11.0		
ICN-198-P	19.8	11.0		
ICN-199-P	19.9	11.0		



ICN...P Drilling Head

For ICN Drills | Better \geq 5D
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-200-P	20.0	11.6	ICN200209 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-201-P	20.1	11.6		
ICN-202-P	20.2	11.6		
ICN-203-P	20.3	11.6		
ICN-204-P	20.4	11.6		
ICN-205-P	20.5	11.6		
ICN-206-P	20.6	11.6		
ICN-207-P	20.7	11.6		
ICN-208-P	20.8	11.6		
ICN-209-P	20.9	11.6		
ICN-210-P	21.0	12.1	ICN210219 -25..	
ICN-211-P	21.1	12.1		
ICN-212-P	21.2	12.1		
ICN-213-P	21.3	12.1		
ICN-214-P	21.4	12.1		
ICN-215-P	21.5	12.1		
ICN-216-P	21.6	12.1		
ICN-217-P	21.7	12.1		
ICN-218-P	21.8	12.1		
ICN-219-P	21.9	12.1		
ICN-220-P	22.0	12.7	ICN220229 -25..	
ICN-221-P	22.1	12.7		
ICN-222-P	22.2	12.7		
ICN-223-P	22.3	12.7		
ICN-224-P	22.4	12.7		
ICN-225-P	22.5	12.7		
ICN-226-P	22.6	12.7		
ICN-227-P	22.7	12.7		
ICN-228-P	22.8	12.7		
ICN-229-P	22.9	12.7		
ICN-230-P	23.0	13.3	ICN230239 -32..	
ICN-231-P	23.1	13.3		
ICN-232-P	23.2	13.3		
ICN-233-P	23.3	13.3		
ICN-234-P	23.4	13.3		

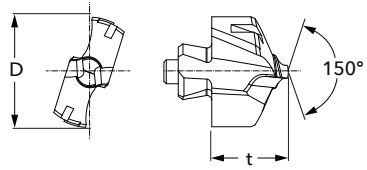
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-235-P	23.5	13.3	ICN230239 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-236-P	23.6	13.3		
ICN-237-P	23.7	13.3		
ICN-238-P	23.8	13.3		
ICN-239-P	23.9	13.3		
ICN-240-P	24.0	13.9	ICN240249 -32..	
ICN-241-P	24.1	13.9		
ICN-242-P	24.2	13.9		
ICN-243-P	24.3	13.9		
ICN-244-P	24.4	13.9		
ICN-245-P	24.5	13.9		
ICN-246-P	24.6	13.9		
ICN-247-P	24.7	13.9		
ICN-248-P	24.8	13.9		
ICN-249-P	24.9	13.9		
ICN-250-P	25.0	14.5	ICN250260 -32..	
ICN-251-P	25.1	14.5		
ICN-252-P	25.2	14.5		
ICN-253-P	25.3	14.5		
ICN-254-P	25.4	14.5		
ICN-255-P	25.5	14.5		
ICN-256-P	25.6	14.5		
ICN-257-P	25.7	14.5		
ICN-258-P	25.8	14.5		
ICN-259-P	25.9	14.5		
ICN-260-P	26.0	14.5	ICN250260 -32-	
ICN-261-P	26.1	14.5		
ICN-262-P	26.2	14.5		
ICN-263-P	26.3	14.5		
ICN-264-P	26.4	14.5		
ICN-265-P	26.5	14.5		
ICN-266-P	26.6	14.5		
ICN-267-P	26.7	14.5		
ICN-268-P	26.8	14.5		
ICN-269-P	26.9	14.5		



ICN...P Drilling Head

For ICN Drills | Better \geq 5D
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-270-P	27.0	15.5	ICN270279 -32..	
ICN-271-P	27.1	15.5		
ICN-272-P	27.2	15.5		
ICN-273-P	27.3	15.5		
ICN-274-P	27.4	15.5		
ICN-275-P	27.5	15.5		
ICN-276-P	27.6	15.5		
ICN-277-P	27.7	15.5		
ICN-278-P	27.8	15.5		
ICN-279-P	27.9	15.5		
ICN-280-P	28.0	16.0	ICN280289 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-281-P	28.1	16.0		
ICN-282-P	28.2	16.0		
ICN-283-P	28.3	16.0		
ICN-284-P	28.4	16.0		
ICN-285-P	28.5	16.0		
ICN-286-P	28.6	16.0		
ICN-287-P	28.7	16.0		
ICN-288-P	28.8	16.0		
ICN-289-P	28.9	16.0		
ICN-290-P	29.0	16.0	ICN290299 -32..	
ICN-291-P	29.1	16.0		
ICN-292-P	29.2	16.0		
ICN-293-P	29.3	16.0		
ICN-294-P	29.4	16.0		
ICN-295-P	29.5	16.0		
ICN-296-P	29.6	16.0		
ICN-297-P	29.7	16.0		
ICN-298-P	29.8	16.0		
ICN-299-P	29.9	16.0		
ICN-300-P	30.0	16.0	ICN300309 -32..	
ICN-301-P	30.1	16.0		
ICN-302-P	30.2	16.0		
ICN-303-P	30.3	16.0		
ICN-304-P	30.4	16.0		

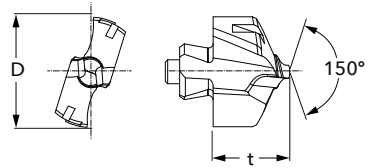
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-305-P	30.5	16.0	ICN300309 -32..	
ICN-306-P	30.6	16.0		
ICN-307-P	30.7	16.0		
ICN-308-P	30.8	16.0		
ICN-309-P	30.9	16.0		
ICN-310-P	31.0	16.0	ICN310319 -32..	
ICN-311-P	31.1	16.0		
ICN-312-P	31.2	16.0		
ICN-313-P	31.3	16.0		
ICN-314-P	31.4	16.0		
ICN-315-P	31.5	16.0		
ICN-316-P	31.6	16.0		
ICN-317-P	31.7	16.0		
ICN-318-P	31.8	16.0		
ICN-319-P	31.9	16.0		
ICN-320-P	32.0	17.5	ICN320329 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-321-P	32.1	17.5		
ICN-322-P	32.2	17.5		
ICN-323-P	32.3	17.5		
ICN-324-P	32.4	17.5		
ICN-325-P	32.5	17.5		
ICN-326-P	32.6	17.5		
ICN-327-P	32.7	17.5		
ICN-328-P	32.8	17.5		
ICN-329-P	32.9	17.5		
ICN-330-P	33.0	18.0	ICN330339 -32..	
ICN-331-P	33.1	18.0		
ICN-332-P	33.2	18.0		
ICN-333-P	33.3	18.0		
ICN-334-P	33.4	18.0		
ICN-335-P	33.5	18.0		
ICN-336-P	33.6	18.0		
ICN-337-P	33.7	18.0		
ICN-338-P	33.8	18.0		
ICN-339-P	33.9	18.0		



ICN...P Drilling Head

For ICN Drills | Better \geq 5D
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-340-P	34.0	18.5	ICN340349 -32..	
ICN-341-P	34.1	18.5		
ICN-342-P	34.2	18.5		
ICN-343-P	34.3	18.5		
ICN-344-P	34.4	18.5		
ICN-345-P	34.5	18.5		
ICN-346-P	34.6	18.5		
ICN-347-P	34.7	18.5		
ICN-348-P	34.8	18.5		
ICN-349-P	34.9	18.5		
ICN-350-P	35.0	18.5	ICN350359 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-351-P	35.1	18.5		
ICN-352-P	35.2	18.5		
ICN-353-P	35.3	18.5		
ICN-354-P	35.4	18.5		
ICN-355-P	35.5	18.5		
ICN-356-P	35.6	18.5		
ICN-357-P	35.7	18.5		
ICN-358-P	35.8	18.5		
ICN-359-P	35.9	18.5		
ICN-360-P	36.0	19.5	ICN360369 -32..	
ICN-361-P	36.1	19.5		
ICN-362-P	36.2	19.5		
ICN-363-P	36.3	19.5		
ICN-364-P	36.4	19.5		
ICN-365-P	36.5	19.5		
ICN-366-P	36.6	19.5		
ICN-367-P	36.7	19.5		
ICN-368-P	36.8	19.5		
ICN-369-P	36.9	19.5		

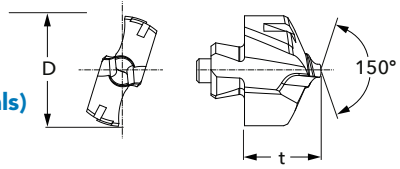
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-370-P	37.0	19.5	ICN370379 -32..	
ICN-371-P	37.1	19.5		
ICN-372-P	37.2	19.5		
ICN-373-P	37.3	19.5		
ICN-374-P	37.4	19.5		
ICN-375-P	37.5	19.5		
ICN-376-P	37.6	19.5		
ICN-377-P	37.7	19.5		
ICN-378-P	37.8	19.5		
ICN-379-P	37.9	19.5		
ICN-380-P	38.0	20.0	ICN370379 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-381-P	38.1	20.0		
ICN-382-P	38.2	20.0		
ICN-383-P	38.3	20.0		
ICN-384-P	38.4	20.0		
ICN-385-P	38.5	20.0		
ICN-386-P	38.6	20.0		
ICN-387-P	38.7	20.0		
ICN-388-P	38.8	20.0		
ICN-389-P	38.9	20.0		
ICN-390-P	39.0	20.0	ICN390399 -32..	
ICN-391-P	39.1	20.0		
ICN-392-P	39.2	20.0		
ICN-393-P	39.3	20.0		
ICN-394-P	39.4	20.0		
ICN-395-P	39.5	20.0		
ICN-396-P	39.6	20.0		
ICN-397-P	39.7	20.0		
ICN-398-P	39.8	20.0		
ICN-399-P	39.9	20.0		



ICN...P Drilling Head

For ICN Drills | Better \geq 5D
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-400-P	40.0	21.0	ICN400409 -32..	
ICN-401-P	40.1	21.0		
ICN-402-P	40.2	21.0		
ICN-403-P	40.3	21.0		
ICN-404-P	40.4	21.0		
ICN-405-P	40.5	21.0		
ICN-406-P	40.6	21.0		
ICN-407-P	40.7	21.0		
ICN-408-P	40.8	21.0		
ICN-409-P	40.9	21.0		
ICN-410-P	41.0	21.0	ICN410419 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-411-P	41.1	21.0		
ICN-412-P	41.2	21.0		
ICN-413-P	41.3	21.0		
ICN-414-P	41.4	21.0		
ICN-415-P	41.5	21.0		
ICN-416-P	41.6	21.0		
ICN-417-P	41.7	21.0		
ICN-418-P	41.8	21.0		
ICN-419-P	41.9	21.0		
ICN-420-P	42.0	21.0	ICN420429 -50..	
ICN-421-P	42.1	21.0		
ICN-422-P	42.2	21.0		
ICN-423-P	42.3	21.0		
ICN-424-P	42.4	21.0		
ICN-425-P	42.5	21.0		
ICN-426-P	42.6	21.0		
ICN-427-P	42.7	21.0		
ICN-428-P	42.8	21.0		
ICN-429-P	42.9	21.0		

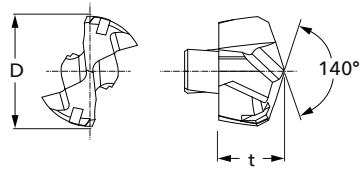
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-430-P	43.0	22.0	ICN430439 -50..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-431-P	43.1	22.0		
ICN-432-P	43.2	22.0		
ICN-433-P	43.3	22.0		
ICN-434-P	43.4	22.0		
ICN-435-P	43.5	22.0		
ICN-436-P	43.6	22.0		
ICN-437-P	43.7	22.0		
ICN-438-P	43.8	22.0		
ICN-439-P	43.9	22.0		
ICN-440-P	44.0	22.0	ICN440450 -50..	
ICN-441-P	44.1	22.0		
ICN-442-P	44.2	22.0		
ICN-443-P	44.3	22.0		
ICN-444-P	44.4	22.0		
ICN-445-P	44.5	22.0		
ICN-446-P	44.6	22.0		
ICN-447-P	44.7	22.0		
ICN-448-P	44.8	22.0		
ICN-449-P	44.9	22.0		
ICN-450-P	45.0	22.0		



ICN...K Drilling Head

For ICN Drills | For Cast Iron
(ISO K Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-080-K	8.0	5.4	ICN080089 -12..	
ICN-081-K	8.1	5.4		
ICN-082-K	8.2	5.4		
ICN-083-K	8.3	5.4		
ICN-084-K	8.4	5.4		
ICN-085-K	8.5	5.4		
ICN-086-K	8.6	5.4		
ICN-087-K	8.7	5.4		
ICN-088-K	8.8	5.4		
ICN-089-K	8.9	5.4		
ICN-090-K	9.0	5.8	ICN090099 -12..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-091-K	9.1	5.8		
ICN-092-K	9.2	5.8		
ICN-093-K	9.3	5.8		
ICN-094-K	9.4	5.8		
ICN-095-K	9.5	5.8		
ICN-096-K	9.6	5.8		
ICN-097-K	9.7	5.8		
ICN-098-K	9.8	5.8		
ICN-099-K	9.9	5.8		
ICN-100-K	10.0	6.2	ICN100109 -16..	
ICN-101-K	10.1	6.2		
ICN-102-K	10.2	6.2		
ICN-103-K	10.3	6.2		
ICN-104-K	10.4	6.2		
ICN-105-K	10.5	6.2		
ICN-106-K	10.6	6.2		
ICN-107-K	10.7	6.2		
ICN-108-K	10.8	6.2		
ICN-109-K	10.9	6.2		

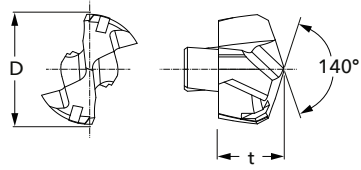
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-110-K	11.0	6.6	ICN110119 -16..	
ICN-111-K	11.1	6.6		
ICN-112-K	11.2	6.6		
ICN-113-K	11.3	6.6		
ICN-114-K	11.4	6.6		
ICN-115-K	11.5	6.6		
ICN-116-K	11.6	6.6		
ICN-117-K	11.7	6.6		
ICN-118-K	11.8	6.6		
ICN-119-K	11.9	6.6		
ICN-120-K	12.0	7.0	ICN120129 -16..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-121-K	12.1	7.0		
ICN-122-K	12.2	7.0		
ICN-123-K	12.3	7.0		
ICN-124-K	12.4	7.0		
ICN-125-K	12.5	7.0		
ICN-126-K	12.6	7.0		
ICN-127-K	12.7	7.0		
ICN-128-K	12.8	7.0		
ICN-129-K	12.9	7.0		
ICN-130-K	13.0	7.6	ICN130139 -16..	
ICN-131-K	13.1	7.6		
ICN-132-K	13.2	7.6		
ICN-133-K	13.3	7.6		
ICN-134-K	13.4	7.6		
ICN-135-K	13.5	7.6		
ICN-136-K	13.6	7.6		
ICN-137-K	13.7	7.6		
ICN-138-K	13.8	7.6		
ICN-139-K	13.9	7.6		



ICN...K Drilling Head

For ICN Drills | For Cast Iron
(ISO K Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-140-K	14.0	8.1	ICN140149 -16..	
ICN-141-K	14.1	8.1		
ICN-142-K	14.2	8.1		
ICN-143-K	14.3	8.1		
ICN-144-K	14.4	8.1		
ICN-145-K	14.5	8.1		
ICN-146-K	14.6	8.1		
ICN-147-K	14.7	8.1		
ICN-148-K	14.8	8.1		
ICN-149-K	14.9	8.1		
ICN-150-K	15.0	8.7	ICN150159 -20..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-151-K	15.1	8.7		
ICN-152-K	15.2	8.7		
ICN-153-K	15.3	8.7		
ICN-154-K	15.4	8.7		
ICN-155-K	15.5	8.7		
ICN-156-K	15.6	8.7		
ICN-157-K	15.7	8.7		
ICN-158-K	15.8	8.7		
ICN-159-K	15.9	8.7		
ICN-160-K	16.0	9.3	ICN100109 -16..	
ICN-161-K	16.1	9.3		
ICN-162-K	16.2	9.3		
ICN-163-K	16.3	9.3		
ICN-164-K	16.4	9.3		
ICN-165-K	16.5	9.3		
ICN-166-K	16.6	9.3		
ICN-167-K	16.7	9.3		
ICN-168-K	16.8	9.3		
ICN-169-K	16.9	9.3		

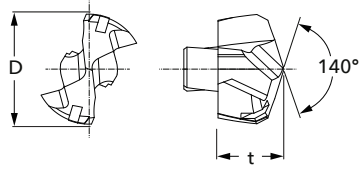
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-170-K	17.0	9.9	ICN170179 -20..	
ICN-171-K	17.1	9.9		
ICN-172-K	17.2	9.9		
ICN-173-K	17.3	9.9		
ICN-174-K	17.4	9.9		
ICN-175-K	17.5	9.9		
ICN-176-K	17.6	9.9		
ICN-177-K	17.7	9.9		
ICN-178-K	17.8	9.9		
ICN-179-K	17.9	9.9		
ICN-180-K	18.0	10.5	ICN180189 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-181-K	18.1	10.5		
ICN-182-K	18.2	10.5		
ICN-183-K	18.3	10.5		
ICN-184-K	18.4	10.5		
ICN-185-K	18.5	10.5		
ICN-186-K	18.6	10.5		
ICN-187-K	18.7	10.5		
ICN-188-K	18.8	10.5		
ICN-189-K	18.9	10.5		
ICN-190-K	19.0	11.0	ICN190199 -25..	
ICN-191-K	19.1	11.0		
ICN-192-K	19.2	11.0		
ICN-193-K	19.3	11.0		
ICN-194-K	19.4	11.0		
ICN-195-K	19.5	11.0		
ICN-196-K	19.6	11.0		
ICN-197-K	19.7	11.0		
ICN-198-K	19.8	11.0		
ICN-199-K	19.9	11.0		



ICN...K Drilling Head

For ICN Drills | For Cast Iron
(ISO K Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-200-K	20.0	11.6	ICN200209 -25..	
ICN-201-K	20.1	11.6		
ICN-202-K	20.2	11.6		
ICN-203-K	20.3	11.6		
ICN-204-K	20.4	11.6		
ICN-205-K	20.5	11.6		
ICN-206-K	20.6	11.6		
ICN-207-K	20.7	11.6		
ICN-208-K	20.8	11.6		
ICN-209-K	20.9	11.6		
ICN-210-K	21.0	12.1	ICN210219 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-211-K	21.1	12.1		
ICN-212-K	21.2	12.1		
ICN-213-K	21.3	12.1		
ICN-214-K	21.4	12.1		
ICN-215-K	21.5	12.1		
ICN-216-K	21.6	12.1		
ICN-217-K	21.7	12.1		
ICN-218-K	21.8	12.1		
ICN-219-K	21.9	12.1		
ICN-220-K	22.0	12.7	ICN220229 -25..	
ICN-221-K	22.1	12.7		
ICN-222-K	22.2	12.7		
ICN-223-K	22.3	12.7		
ICN-224-K	22.4	12.7		
ICN-225-K	22.5	12.7		
ICN-226-K	22.6	12.7		
ICN-227-K	22.7	12.7		
ICN-228-K	22.8	12.7		
ICN-229-K	22.9	12.7		

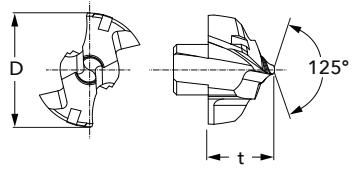
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-230-K	23.0	13.3	ICN230239 -32..	
ICN-231-K	23.1	13.3		
ICN-232-K	23.2	13.3		
ICN-233-K	23.3	13.3		
ICN-234-K	23.4	13.3		
ICN-235-K	23.5	13.3		
ICN-236-K	23.6	13.3		
ICN-237-K	23.7	13.3		
ICN-238-K	23.8	13.3		
ICN-239-K	23.9	13.3		
ICN-240-K	24.0	13.9	ICN240249 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-241-K	24.1	13.9		
ICN-242-K	24.2	13.9		
ICN-243-K	24.3	13.9		
ICN-244-K	24.4	13.9		
ICN-245-K	24.5	13.9		
ICN-246-K	24.6	13.9		
ICN-247-K	24.7	13.9		
ICN-248-K	24.8	13.9		
ICN-249-K	24.9	13.9		
ICN-250-K	25.0	14.5	ICN250260 -32..	
ICN-251-K	25.1	14.5		
ICN-252-K	25.2	14.5		
ICN-253-K	25.3	14.5		
ICN-254-K	25.4	14.5		
ICN-255-K	25.5	14.5		
ICN-256-K	25.6	14.5		
ICN-257-K	25.7	14.5		
ICN-258-K	25.8	14.5		
ICN-259-K	25.9	14.5		
ICN-260-K	26.0	14.5		



ICN...M Drilling Head

For ICN Drills | For Stainless Steel
(ISO M Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-080-M	8.0	5.4	ICN080089 -12..	
ICN-081-M	8.1	5.4		
ICN-082-M	8.2	5.4		
ICN-083-M	8.3	5.4		
ICN-084-M	8.4	5.4		
ICN-085-M	8.5	5.4		
ICN-086-M	8.6	5.4		
ICN-087-M	8.7	5.4		
ICN-088-M	8.8	5.4		
ICN-089-M	8.9	5.4		
ICN-090-M	9.0	5.8	ICN090099 -12..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-091-M	9.1	5.8		
ICN-092-M	9.2	5.8		
ICN-093-M	9.3	5.8		
ICN-094-M	9.4	5.8		
ICN-095-M	9.5	5.8		
ICN-096-M	9.6	5.8		
ICN-097-M	9.7	5.8		
ICN-098-M	9.8	5.8		
ICN-099-M	9.9	5.8		
ICN-100-M	10.0	6.2	ICN100109 -16..	
ICN-101-M	10.1	6.2		
ICN-102-M	10.2	6.2		
ICN-103-M	10.3	6.2		
ICN-104-M	10.4	6.2		
ICN-105-M	10.5	6.2		
ICN-106-M	10.6	6.2		
ICN-107-M	10.7	6.2		
ICN-108-M	10.8	6.2		
ICN-109-M	10.9	6.2		

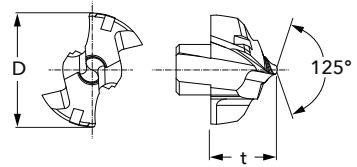
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-110-M	11.0	6.6	ICN110119 -16..	
ICN-111-M	11.1	6.6		
ICN-112-M	11.2	6.6		
ICN-113-M	11.3	6.6		
ICN-114-M	11.4	6.6		
ICN-115-M	11.5	6.6		
ICN-116-RD	11.6	6.6		
ICN-117-RD	11.7	6.6		
ICN-118-M	11.8	6.6		
ICN-119-M	11.9	6.6		
ICN-120-M	12.0	7.0	ICN120129 -16..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-121-M	12.1	7.0		
ICN-122-M	12.2	7.0		
ICN-123-M	12.3	7.0		
ICN-124-M	12.4	7.0		
ICN-125-M	12.5	7.0		
ICN-126-M	12.6	7.0		
ICN-127-M	12.7	7.0		
ICN-128-M	12.8	7.0		
ICN-129-M	12.9	7.0		
ICN-130-M	13.0	7.6	ICN130139 -16..	
ICN-131-M	13.1	7.6		
ICN-132-M	13.2	7.6		
ICN-133-M	13.3	7.6		
ICN-134-M	13.4	7.6		
ICN-135-M	13.5	7.6		
ICN-136-M	13.6	7.6		
ICN-137-M	13.7	7.6		
ICN-138-M	13.8	7.6		
ICN-139-M	13.9	7.6		



ICN...M Drilling Head

For ICN Drills | For Stainless Steel
(ISO M Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-140-M	14.0	8.1	ICN140149 -16..	
ICN-141-M	14.1	8.1		
ICN-142-M	14.2	8.1		
ICN-143-M	14.3	8.1		
ICN-144-M	14.4	8.1		
ICN-145-M	14.5	8.1		
ICN-146-M	14.6	8.1		
ICN-147-M	14.7	8.1		
ICN-148-M	14.8	8.1		
ICN-149-M	14.9	8.1		
ICN-150-M	15.0	8.7	ICN150159 -20..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-151-M	15.1	8.7		
ICN-152-M	15.2	8.7		
ICN-153-M	15.3	8.7		
ICN-154-M	15.4	8.7		
ICN-155-M	15.5	8.7		
ICN-156-M	15.6	8.7		
ICN-157-M	15.7	8.7		
ICN-158-M	15.8	8.7		
ICN-159-M	15.9	8.7		
ICN-160-M	16.0	9.3	ICN160169 -20..	
ICN-161-M	16.1	9.3		
ICN-162-M	16.2	9.3		
ICN-163-M	16.3	9.3		
ICN-164-M	16.4	9.3		
ICN-165-M	16.5	9.3		
ICN-166-M	16.6	9.3		
ICN-167-M	16.7	9.3		
ICN-168-M	16.8	9.3		
ICN-169-M	16.9	9.3		

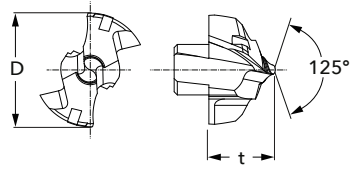
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-170-M	17.0	9.9	ICN170179 -20..	
ICN-171-M	17.1	9.9		
ICN-172-M	17.2	9.9		
ICN-173-M	17.3	9.9		
ICN-174-M	17.4	9.9		
ICN-175-M	17.5	9.9		
ICN-176-M	17.6	9.9		
ICN-177-M	17.7	9.9		
ICN-178-M	17.8	9.9		
ICN-179-M	17.9	9.9		
ICN-180-M	18.0	10.5	ICN180189 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-181-M	18.1	10.5		
ICN-182-M	18.2	10.5		
ICN-183-M	18.3	10.5		
ICN-184-M	18.4	10.5		
ICN-185-M	18.5	10.5		
ICN-186-M	18.6	10.5		
ICN-187-M	18.7	10.5		
ICN-188-M	18.8	10.5		
ICN-189-M	18.9	10.5		
ICN-190-M	19.0	11.0	ICN190199 -25..	
ICN-191-M	19.1	11.0		
ICN-192-M	19.2	11.0		
ICN-193-M	19.3	11.0		
ICN-194-M	19.4	11.0		
ICN-195-M	19.5	11.0		
ICN-196-M	19.6	11.0		
ICN-197-M	19.7	11.0		
ICN-198-M	19.8	11.0		
ICN-199-M	19.9	11.0		



ICN...M Drilling Head

For ICN Drills | For Stainless Steel
(ISO M Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-200-M	20.0	11.6	ICN200209 -25..	
ICN-201-M	20.1	11.6		
ICN-202-M	20.2	11.6		
ICN-203-M	20.3	11.6		
ICN-204-M	20.4	11.6		
ICN-205-M	20.5	11.6		
ICN-206-M	20.6	11.6		
ICN-207-M	20.7	11.6		
ICN-208-M	20.8	11.6		
ICN-209-M	20.9	11.6		
ICN-210-M	21.0	12.1	ICN210219 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-211-M	21.1	12.1		
ICN-212-M	21.2	12.1		
ICN-213-M	21.3	12.1		
ICN-214-M	21.4	12.1		
ICN-215-M	21.5	12.1		
ICN-216-M	21.6	12.1		
ICN-217-M	21.7	12.1		
ICN-218-M	21.8	12.1		
ICN-219-M	21.9	12.1		
ICN-220-M	22.0	12.7	ICN220229 -25..	
ICN-221-M	22.1	12.7		
ICN-222-M	22.2	12.7		
ICN-223-M	22.3	12.7		
ICN-224-M	22.4	12.7		
ICN-225-M	22.5	12.7		
ICN-226-M	22.6	12.7		
ICN-227-M	22.7	12.7		
ICN-228-M	22.8	12.7		
ICN-229-M	22.9	12.7		

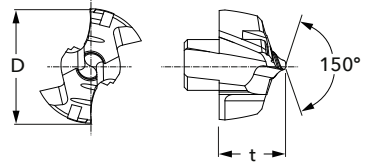
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-230-M	23.0	13.3	ICN230239 -32..	
ICN-231-M	23.1	13.3		
ICN-232-M	23.2	13.3		
ICN-233-M	23.3	13.3		
ICN-234-M	23.4	13.3		
ICN-235-M	23.5	13.3		
ICN-236-M	23.6	13.3		
ICN-237-M	23.7	13.3		
ICN-238-M	23.8	13.3		
ICN-239-M	23.9	13.3		
ICN-240-M	24.0	13.9	ICN240249 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-241-M	24.1	13.9		
ICN-242-M	24.2	13.9		
ICN-243-M	24.3	13.9		
ICN-244-M	24.4	13.9		
ICN-245-M	24.5	13.9		
ICN-246-M	24.6	13.9		
ICN-247-M	24.7	13.9		
ICN-248-M	24.8	13.9		
ICN-249-M	24.9	13.9		
ICN-250-M	25.0	14.5	ICN250260 -32..	
ICN-251-M	25.1	14.5		
ICN-252-M	25.2	14.5		
ICN-253-M	25.3	14.5		
ICN-254-M	25.4	14.5		
ICN-255-M	25.5	14.5		
ICN-256-M	25.6	14.5		
ICN-257-M	25.7	14.5		
ICN-258-M	25.8	14.5		
ICN-259-M	25.9	14.5		
ICN-260-M	26.0	14.5		



ICN...S Drilling Head

For ICN Drills | For Hard-to-cut Metals (ISO S Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-080-S	8.0	5.4	ICN080089 -12..	
ICN-081-S	8.1	5.4		
ICN-082-S	8.2	5.4		
ICN-083-S	8.3	5.4		
ICN-084-S	8.4	5.4		
ICN-085-S	8.5	5.4		
ICN-086-S	8.6	5.4		
ICN-087-S	8.7	5.4		
ICN-088-S	8.8	5.4		
ICN-089-S	8.9	5.4		
ICN-090-S	9.0	5.8	ICN090099 -12..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-091-S	9.1	5.8		
ICN-092-S	9.2	5.8		
ICN-093-S	9.3	5.8		
ICN-094-S	9.4	5.8		
ICN-095-S	9.5	5.8		
ICN-096-S	9.6	5.8		
ICN-097-S	9.7	5.8		
ICN-098-S	9.8	5.8		
ICN-099-S	9.9	5.8		
ICN-100-S	10.0	6.2	ICN100109 -16..	
ICN-101-S	10.1	6.2		
ICN-102-S	10.2	6.2		
ICN-103-S	10.3	6.2		
ICN-104-S	10.4	6.2		
ICN-105-S	10.5	6.2		
ICN-106-S	10.6	6.2		
ICN-107-S	10.7	6.2		
ICN-108-S	10.8	6.2		
ICN-109-S	10.9	6.2		

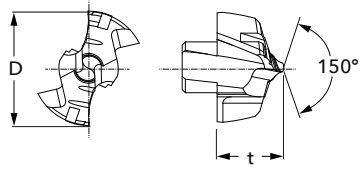
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-110-S	11.0	6.6	ICN110119 -16..	
ICN-111-S	11.1	6.6		
ICN-112-S	11.2	6.6		
ICN-113-S	11.3	6.6		
ICN-114-S	11.4	6.6		
ICN-115-S	11.5	6.6		
ICN-116-S	11.6	6.6		
ICN-117-S	11.7	6.6		
ICN-118-S	11.8	6.6		
ICN-119-S	11.9	6.6		
ICN-120-S	12.0	7.0	ICN120129 -16..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-121-S	12.1	7.0		
ICN-122-S	12.2	7.0		
ICN-123-S	12.3	7.0		
ICN-124-S	12.4	7.0		
ICN-125-S	12.5	7.0		
ICN-126-S	12.6	7.0		
ICN-127-S	12.7	7.0		
ICN-128-S	12.8	7.0		
ICN-129-S	12.9	7.0		
ICN-130-S	13.0	7.6	ICN130139 -16..	
ICN-131-S	13.1	7.6		
ICN-132-S	13.2	7.6		
ICN-133-S	13.3	7.6		
ICN-134-S	13.4	7.6		
ICN-135-S	13.5	7.6		
ICN-136-S	13.6	7.6		
ICN-137-S	13.7	7.6		
ICN-138-S	13.8	7.6		
ICN-139-S	13.9	7.6		



ICN...S Drilling Head

For ICN Drills | For Hard-to-cut Metals (ISO S Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-140-S	14.0	8.1	ICN140149 -16..	
ICN-141-S	14.1	8.1		
ICN-142-S	14.2	8.1		
ICN-143-S	14.3	8.1		
ICN-144-S	14.4	8.1		
ICN-145-S	14.5	8.1		
ICN-146-S	14.6	8.1		
ICN-147-S	14.7	8.1		
ICN-148-S	14.8	8.1		
ICN-149-S	14.9	8.1		
ICN-150-S	15.0	8.7	ICN150159 -20..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-151-S	15.1	8.7		
ICN-152-S	15.2	8.7		
ICN-153-S	15.3	8.7		
ICN-154-S	15.4	8.7		
ICN-155-S	15.5	8.7		
ICN-156-S	15.6	8.7		
ICN-157-S	15.7	8.7		
ICN-158-S	15.8	8.7		
ICN-159-S	15.9	8.7		
ICN-160-S	16.0	9.3	ICN160169 -20..	
ICN-161-S	16.1	9.3		
ICN-162-S	16.2	9.3		
ICN-163-S	16.3	9.3		
ICN-164-S	16.4	9.3		
ICN-165-S	16.5	9.3		
ICN-166-S	16.6	9.3		
ICN-167-S	16.7	9.3		
ICN-168-S	16.8	9.3		
ICN-169-S	16.9	9.3		

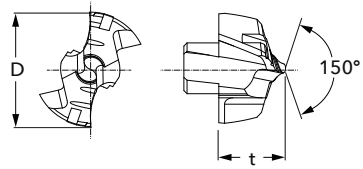
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-170-S	17.0	9.9	ICN170179 -20..	
ICN-171-S	17.1	9.9		
ICN-172-S	17.2	9.9		
ICN-173-S	17.3	9.9		
ICN-174-S	17.4	9.9		
ICN-175-S	17.5	9.9		
ICN-176-S	17.6	9.9		
ICN-177-S	17.7	9.9		
ICN-178-S	17.8	9.9		
ICN-179-S	17.9	9.9		
ICN-180-S	18.0	10.5	ICN180189 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-181-S	18.1	10.5		
ICN-182-S	18.2	10.5		
ICN-183-S	18.3	10.5		
ICN-184-S	18.4	10.5		
ICN-185-S	18.5	10.5		
ICN-186-S	18.6	10.5		
ICN-187-S	18.7	10.5		
ICN-188-S	18.8	10.5		
ICN-189-S	18.9	10.5		
ICN-190-S	19.0	11.0	ICN190199 -25..	
ICN-191-S	19.1	11.0		
ICN-192-S	19.2	11.0		
ICN-193-S	19.3	11.0		
ICN-194-S	19.4	11.0		
ICN-195-S	19.5	11.0		
ICN-196-S	19.6	11.0		
ICN-197-S	19.7	11.0		
ICN-198-S	19.8	11.0		
ICN-199-S	19.9	11.0		



ICN...S Drilling Head

For ICN Drills | For Hard-to-cut Metals (ISO S Materials)



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-200-S	20.0	11.6	ICN200209 -25..	
ICN-201-S	20.1	11.6		
ICN-202-S	20.2	11.6		
ICN-203-S	20.3	11.6		
ICN-204-S	20.4	11.6		
ICN-205-S	20.5	11.6		
ICN-206-S	20.6	11.6		
ICN-207-S	20.7	11.6		
ICN-208-S	20.8	11.6		
ICN-209-S	20.9	11.6		
ICN-210-S	21.0	12.1	ICN210219 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-211-S	21.1	12.1		
ICN-212-S	21.2	12.1		
ICN-213-S	21.3	12.1		
ICN-214-S	21.4	12.1		
ICN-215-S	21.5	12.1		
ICN-216-S	21.6	12.1		
ICN-217-S	21.7	12.1		
ICN-218-S	21.8	12.1		
ICN-219-S	21.9	12.1		
ICN-220-S	22.0	12.7	ICN220229 -25..	
ICN-221-S	22.1	12.7		
ICN-222-S	22.2	12.7		
ICN-223-S	22.3	12.7		
ICN-224-S	22.4	12.7		
ICN-225-S	22.5	12.7		
ICN-226-S	22.6	12.7		
ICN-227-S	22.7	12.7		
ICN-228-S	22.8	12.7		
ICN-229-S	22.9	12.7		

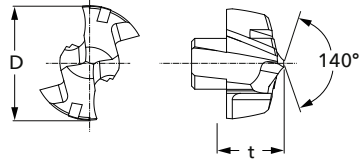
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-230-S	23.0	13.3	ICN230239 -32..	
ICN-231-S	23.1	13.3		
ICN-232-S	23.2	13.3		
ICN-233-S	23.3	13.3		
ICN-234-S	23.4	13.3		
ICN-235-S	23.5	13.3		
ICN-236-S	23.6	13.3		
ICN-237-S	23.7	13.3		
ICN-238-S	23.8	13.3		
ICN-239-S	23.9	13.3		
ICN-240-S	24.0	13.9	ICN240249 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-241-S	24.1	13.9		
ICN-242-S	24.2	13.9		
ICN-243-S	24.3	13.9		
ICN-244-S	24.4	13.9		
ICN-245-S	24.5	13.9		
ICN-246-S	24.6	13.9		
ICN-247-S	24.7	13.9		
ICN-248-S	24.8	13.9		
ICN-249-S	24.9	13.9		
ICN-250-S	25.0	14.5	ICN250260 -32..	
ICN-251-S	25.1	14.5		
ICN-252-S	25.2	14.5		
ICN-253-S	25.3	14.5		
ICN-254-S	25.4	14.5		
ICN-255-S	25.5	14.5		
ICN-256-S	25.6	14.5		
ICN-257-S	25.7	14.5		
ICN-258-S	25.8	14.5		
ICN-259-S	25.9	14.5		
ICN-260-S	26.0	14.5		



ICN...F Drilling Head

For ICN Drills | Flat Bottom

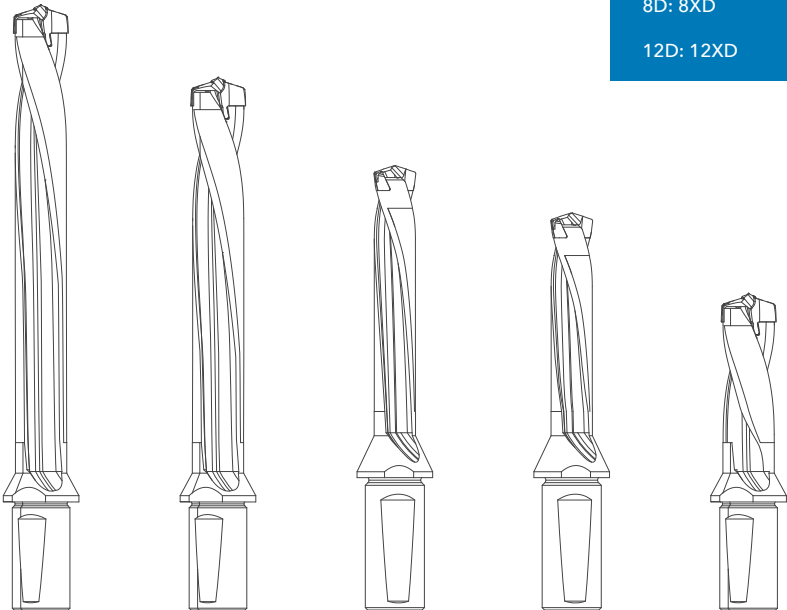
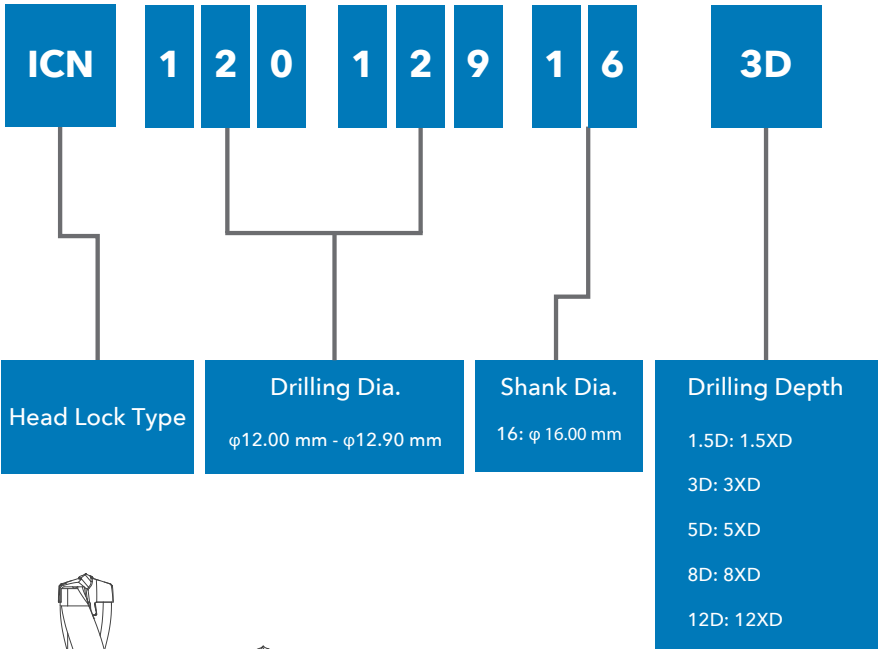


Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
ICN-080-F	8.0	4.0	ICN080089-12..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
ICN-085-F	8.5	4.0		
ICN-090-F	9.0	4.2	ICN090099-12..	
ICN-095-F	9.5	4.2		
ICN-100-F	10.0	4.4	ICN100109-16..	
ICN-105-F	10.5	4.4		
ICN-110-F	11.0	4.5	ICN110119-16..	
ICN-115-F	11.5	4.5		
ICN-120-F	12.0	4.8	ICN120129-16..	
ICN-125-F	12.5	4.8		
ICN-130-F	13.0	5.1	ICN130139-16..	
ICN-135-F	13.5	5.1		
ICN-140-F	14.0	5.5	ICN140149-16..	
ICN-145-F	14.5	5.5		
ICN-150-F	15.0	5.9	ICN150159-20..	
ICN-155-F	15.5	5.9		
ICN-160-F	16.0	6.3	ICN160169-20..	
ICN-165-F	16.5	6.3		
ICN-170-F	17.0	6.6	ICN170179-20..	
ICN-175-F	17.5	6.6		
ICN-180-F	18.0	6.9	ICN180189-25..	
ICN-185-F	18.5	6.9		
ICN-190-F	19.0	7.2	ICN190199-25..	
ICN-195-F	19.5	7.2		
ICN-200-F	20.0	8.2	ICN200219-25..	
ICN-205-F	20.5	8.2		
ICN-210-F	21.0	8.6	ICN210219-25..	
ICN-215-F	21.5	8.6		
ICN-220-F	22.0	8.9	ICN220229-25..	
ICN-225-F	22.5	8.9		
ICN-230-F	23.0	9.3	ICN230239-32..	
ICN-235-F	23.5	9.3		
ICN-240-F	24.0	9.7	ICN240249-32..	
ICN-245-F	24.5	9.7		
ICN-250-F	25.0	10.1	ICN250260-32..	
ICN-255-F	25.5	10.1		
ICN-260-F	26.0	10.1		



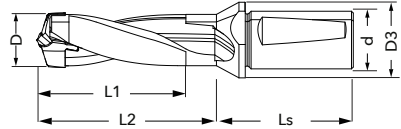
ICN Drill Body Coding System SumoHead





ICN...1.5D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 1.5XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	D3	L1	L2	Ls	D	
ICN080089-12-1.5D	8.0-8.9	12	16	23.4	34.4	45	7.5	K8-11.9
ICN090099-12-1.5D	9.0-9.9	12	16	24.0	36.8	45	8.5	
ICN100109-16-1.5D	10.0-10.9	16	20	25.0	39.0	48	9.5	
ICN110119-16-1.5D	11.0-11.9	16	20	27.0	42.3	48	10.5	
ICN120129-16-1.5D	12.0-12.9	16	20	29.0	43.5	48	11.5	K12-16.9
ICN130139-16-1.5D	13.0-13.9	16	20	31.0	45.7	48	12.5	
ICN140149-16-1.5D	14.0-14.9	16	20	33.0	46.9	48	13.5	
ICN150159-20-1.5D	15.0-15.9	20	25	36.0	54.4	50	14.5	
ICN160169-20-1.5D	16.0-16.9	20	25	38.0	54.0	50	15.5	K17-20.9
ICN170179-20-1.5D	17.0-17.9	20	25	40.4	59.7	50	16.5	
ICN180189-25-1.5D	18.0-18.9	25	32	42.0	65.0	56	17.5	
ICN190199-25-1.5D	19.0-19.9	25	32	44.0	66.2	56	18.5	
ICN200209-25-1.5D	20.0-20.9	25	32	47.0	71.6	56	19.5	K21-26
ICN210219-25-1.5D	21.0-21.9	25	32	49.0	73.9	56	20.5	
ICN220229-25-1.5D	22.0-22.9	25	32	50.8	73.2	56	21.5	
ICN230239-32-1.5D	23.0-23.9	32	42	53.0	82.5	60	22.5	
ICN240249-32-1.5D	24.0-24.9	32	42	55.3	84.9	60	23.5	K21-26
ICN250260-32-1.5D	25.0-26.0	32	42	58.0	89.5	60	24.5	
ICN250260-32-1.5D	26.0-26.9	32	42	58	89.5	60	24.5	
ICN270279-32-1.5D	27.0-27.9	32	42	63.5	95.5	60	26.5	

Insert pages :

ICN...G page 2

ICN...P page 8

ICN...K page 14

ICN...M page 17

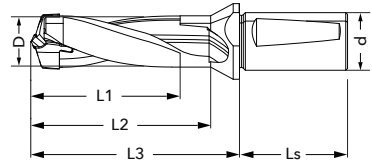
ICN...S page 20

ICN...F page 23



ICN...1.5D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 1.5XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	L1	L2	L3	D	Ls	
ICN280289-32-1.5D	28.0-28.9	32	43.5	72.5	72.5	27.5	60	K27-32
ICN290299-32-1.5D	29.0-29.9	32	45.0	75.0	75.0	28.5	60	
ICN300309-32-1.5D	30.0-30.9	32	46.5	77.5	77.5	29.5	60	
ICN310319-32-1.5D	31.0-31.9	32	48.0	80.0	80.0	30.5	60	
ICN320229-32-1.5D	32.0-32.9	32	49.5	82.5	82.5	31.5	60	
ICN330339-32-1.5D	33.0-33.9	32	51.0	85.0	85.0	32.5	60	K33-38
ICN340349-32-1.5D	34.0-34.9	32	52.5	87.5	87.5	33.5	60	
ICN350359-32-1.5D	35.0-35.9	32	54.0	90.0	90.0	34.5	60	
ICN360369-32-1.5D	36.0-36.9	32	55.5	92.5	92.5	35.5	60	
ICN370379-32-1.5D	37.0-37.9	32	57.0	95.0	95.0	36.5	60	
ICN380389-32-1.5D	38.0-38.9	32	58.5	97.5	97.5	37.5	60	K39-45
ICN390399-32-1.5D	39.0-39.9	32	60.0	100.0	100.0	38.5	60	
ICN400409-32-1.5D	40.0-40.9	32	61.5	102.5	102.5	39.5	60	
ICN410419-32-1.5D	41.0-41.9	32	63.0	105.0	105.0	40.5	60	
ICN420429-50-1.5D	42.0-42.9	50	64.5	107.5	107.5	41.5	80	
ICN430439-50-1.5D	43.0-43.9	50	66.0	110.0	110.0	42.5	80	K39-45
ICN440450-50-1.5D	44.0-45.0	50	67.5	112.5	112.5	43.5	80	

Insert pages :

ICN...G page 5

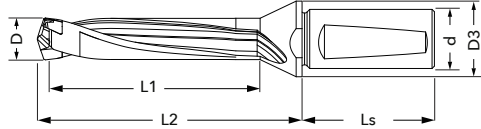
ICN...P page 11



ICN...3D Drilling Body



With Coolant Holes | Weldon Shank
Drilling Depth 3XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	D3	L1	L2	Ls	D	
ICN080089-12-3D	8.0-8.9	12	16	36.0	47.4	45	7.5	K8-11.9
ICN090099-12-3D	9.0-9.9	12	16	37.0	49.6	45	8.5	
ICN100109-16-3D	10.0-10.9	16	20	41.0	55.0	48	9.5	
ICN110119-16-3D	11.0-11.9	16	20	45.0	60.3	48	10.5	
ICN120129-16-3D	12.0-12.9	16	20	48.0	62.5	48	11.5	K12-16.9
ICN130139-16-3D	13.0-13.9	16	20	52.0	66.7	48	12.5	
ICN140149-16-3D	14.0-14.9	16	20	55.5	68.9	48	13.5	
ICN150159-20-3D	15.0-15.9	20	25	60.0	78.4	50	14.5	
ICN160169-20-3D	16.0-16.9	20	25	63.0	79.0	50	15.5	K17-20.9
ICN170179-20-3D	17.0-17.9	20	25	66.0	79.7	50	16.5	
ICN180189-25-3D	18.0-18.9	25	32	70.5	93.5	56	17.5	
ICN190199-25-3D	19.0-19.9	25	32	75.0	97.2	56	18.5	
ICN200209-25-3D	20.0-20.9	25	32	78.0	102.6	56	19.5	K21-26
ICN210219-25-3D	21.0-21.9	25	32	82.0	106.9	56	20.5	
ICN220229-25-3D	22.0-22.9	25	32	85.8	108.2	56	21.5	
ICN230239-32-3D	23.0-23.9	32	42	89.3	119.5	60	22.5	
ICN240249-32-3D	24.0-24.9	32	42	93.3	122.9	60	23.5	
ICN250260-32-3D	25.0-26.0	32	42	97.2	128.5	60	24.5	
ICN250260-32-3D	26.0-26.9	32	42	97.2	128.5	60	24.5	K21-26
ICN270279-32-3D	27.0-27.9	32	42	105	137	60	26.5	

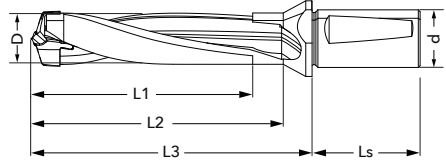
Insert pages :

- ICN...G page 2
- ICN...P page 8
- ICN...K page 14
- ICN...M page 17
- ICN...S page 20
- ICN...F page 23



ICN...3D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 3XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	L1	L2	L3	D	Ls	
ICN280289-32-3D	28.0-28.9	32	87.0	116.0	136.0	27.5	60	K27-32
ICN290299-32-3D	29.0-29.9	32	90.0	120.0	140.0	28.5	60	
ICN300309-32-3D	30.0-30.9	32	93.0	124.0	144.0	29.5	60	
ICN310319-32-3D	31.0-31.9	32	96.0	128.0	148.0	30.5	60	
ICN320229-32-3D	32.0-32.9	32	99.0	132.0	152.0	31.5	60	
ICN330339-32-3D	33.0-33.9	32	102.0	136.0	156.0	32.5	60	
ICN340349-32-3D	34.0-34.9	32	105.0	140.0	160.0	33.5	60	K33-38
ICN350359-32-3D	35.0-35.9	32	108.0	144.0	164.0	34.5	60	
ICN360369-32-3D	36.0-36.9	32	111.0	148.0	168.0	35.5	60	
ICN370379-32-3D	37.0-37.9	32	114.0	152.0	172.0	36.5	60	
ICN380389-32-3D	38.0-38.9	32	117.0	156.0	176.0	37.5	60	
ICN390399-32-3D	39.0-39.9	32	120.0	160.0	180.0	38.5	60	
ICN400409-32-3D	40.0-40.9	32	123.0	164.0	184.0	39.5	60	K39-45
ICN410419-32-3D	41.0-41.9	32	126.0	168.0	188.0	40.5	60	
ICN420429-50-3D	42.0-42.9	50	129.0	172.0	192.0	41.5	80	
ICN430439-50-3D	43.0-43.9	50	132.0	176.0	196.0	42.5	80	
ICN440449-50-3D	44.0-44.9	50	135.0	180.0	200.0	43.5	80	
ICN440450-50-3D	44.0-45.0	50	135.0	180.0	200.0	43.5	80	

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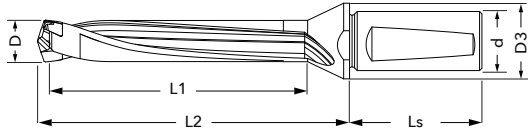
ICN...G page 5

ICN...P page 11



ICN...5D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 5XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	D3	L1	L2	Ls	D	
ICN080089-12-5D	8.0-8.9	12	16	54.0	65.4	45	7.5	K8-11.9
ICN090099-12-5D	9.0-9.9	12	16	57.0	69.6	45	8.5	
ICN100109-16-5D	10.0-10.9	16	20	63.0	78.0	48	9.5	
ICN110119-16-5D	11.0-11.9	16	20	69.0	84.3	48	10.5	
ICN120129-16-5D	12.0-12.9	16	20	75.0	89.5	48	11.5	K12-16.9
ICN130139-16-5D	13.0-13.9	16	20	80.0	94.7	48	12.5	
ICN140149-16-5D	14.0-14.9	16	20	83.7	96.9	48	13.5	
ICN150159-20-5D	15.0-15.9	20	25	92.0	110.4	50	14.5	
ICN160169-20-5D	16.0-16.9	20	25	98.0	114.0	50	15.5	K17-20.9
ICN170179-20-5D	17.0-17.9	20	25	103.4	122.7	50	16.5	
ICN180189-25-5D	18.0-18.9	25	32	109.3	132.0	56	17.5	
ICN190199-25-5D	19.0-19.9	25	32	114.0	136.2	56	18.5	
ICN200209-25-5D	20.0-20.9	25	32	120.0	144.6	56	19.5	K21-26
ICN210219-25-5D	21.0-21.9	25	32	126.0	150.9	56	20.5	
ICN220229-25-5D	22.0-22.9	25	32	131.8	154.2	56	21.5	
ICN230239-32-5D	23.0-23.9	32	42	137.0	167.5	60	22.5	
ICN240249-32-5D	24.0-24.9	32	42	143.0	172.9	60	23.5	
ICN250260-32-5D	25.0-26.0	32	42	149.2	180.5	60	24.5	
ICN250260-32-5D	26.0-26.9	32	42	149.2	180.5	60	24.5	K21-26
ICN270279-32-5D	27.0-27.9	32	42	161.5	193.5	60	26.5	

Insert pages :

ICN...G page 2

ICN...P page 8

ICN...K page 14

ICN...M page 17

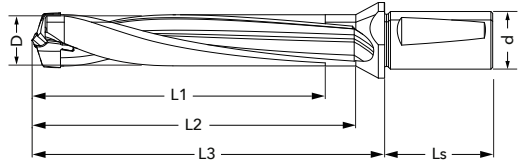
ICN...S page 20

ICN...F page 23



ICN...5D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 5XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	L1	L2	L3	D	Ls	
ICN280289-32-5D	28.0-28.9	32	145.0	174.0	194.0	27.5	60	K27-32
ICN290299-32-5D	29.0-29.9	32	150.0	180.0	200.0	28.5	60	
ICN300309-32-5D	30.0-30.9	32	155.0	186.0	206.0	29.5	60	
ICN310319-32-5D	31.0-31.9	32	160.0	192.0	212.0	30.5	60	
ICN320229-32-5D	32.0-32.9	32	165.0	198.0	218.0	31.5	60	
ICN330339-32-5D	33.0-33.9	32	170.0	204.0	224.0	32.5	60	K33-38
ICN340349-32-5D	34.0-34.9	32	175.0	210.0	230.0	33.5	60	
ICN350359-32-5D	35.0-35.9	32	180.0	216.0	236.0	34.5	60	
ICN360369-32-5D	36.0-36.9	32	185.0	222.0	242.0	35.5	60	
ICN370379-32-5D	37.0-37.9	32	190.0	228.0	248.0	36.5	60	
ICN380389-32-5D	38.0-38.9	32	195.0	234.0	254.0	37.5	60	K39-45
ICN390399-32-5D	39.0-39.9	32	200.0	240.0	260.0	38.5	60	
ICN400409-32-5D	40.0-40.9	32	205.0	246.0	266.0	39.5	60	
ICN410419-32-5D	41.0-41.9	32	210.0	252.0	272.0	40.5	60	
ICN420429-50-5D	42.0-42.9	50	215.0	258.0	278.0	41.5	80	
ICN430439-50-5D	43.0-43.9	50	220.0	264.0	284.0	42.5	80	K39-45
ICN440450-50-5D	44.0-45.0	50	225.0	270.0	290.0	43.5	80	

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ICN...G page 5

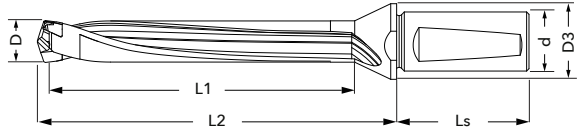
ICN...P page 11



ICN...8D Drilling Body



With Coolant Holes | Weldon Shank
Drilling Depth 8XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	D3	L1	L2	Ls	D	
ICN080089-12-8D	8.0-8.9	12	16	82.0	93.4	45	7.5	K8-11.9
ICN090099-12-8D	9.0-9.9	12	16	87.0	99.0	45	8.5	
ICN100109-16-8D	10.0-10.9	16	20	96.0	110.0	48	9.5	
ICN110119-16-8D	11.0-11.9	16	20	105.0	120.3	48	10.5	
ICN120129-16-8D	12.0-12.9	16	20	114.0	128.0	48	11.5	K12-16.9
ICN130139-16-8D	13.0-13.9	16	20	122.0	136.7	48	12.5	
ICN140149-16-8D	14.0-14.9	16	20	130.5	143.9	48	13.5	
ICN150159-20-8D	15.0-15.9	20	25	140.0	158.4	50	14.5	
ICN160169-20-8D	16.0-16.9	20	25	148.0	164.0	50	15.5	K17-20.9
ICN170179-20-8D	17.0-17.9	20	25	157.0	176.7	50	16.5	
ICN180189-25-8D	18.0-18.9	25	32	166.0	189.0	56	17.5	
ICN190199-25-8D	19.0-19.9	25	32	174.0	196.2	56	18.5	
ICN200209-25-8D	20.0-20.9	25	32	183.0	207.6	56	19.5	K21-26
ICN210219-25-8D	21.0-21.9	25	32	192.0	216.9	56	20.5	
ICN220229-25-8D	22.0-22.9	25	32	201.0	223.2	56	21.5	
ICN230239-32-8D	23.0-23.9	32	42	208.0	238.5	60	22.5	
ICN240249-32-8D	24.0-24.9	32	42	217.9	247.9	60	23.5	K21-26
ICN250260-32-8D	25.0-26.0	32	42	227.0	258.5	60	24.5	
ICN250260-32-8D	26.0-26.9	32	42	227	258.5	60	24.5	
ICN270279-32-8D	27.0-27.9	32	42	245.5	277.5	60	26.5	

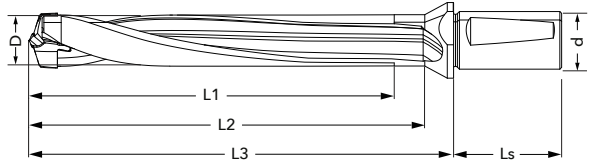
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- ICN...G page 2
- ICN...P page 8
- ICN...K page 14
- ICN...M page 17
- ICN...S page 20
- ICN...F page 23




ICN...8D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 8XD



Unit: mm

Specification	Drilling Dia.	Dimensions							Key 
		d	L1	L2	L3	D	Ls		
ICN280289-32-8D	28.0-28.9	32	232.0	261.0	281.0	27.5	60	K27-32	
ICN290299-32-8D	29.0-29.9	32	240.0	270.0	290.0	28.5	60		
ICN300309-32-8D	30.0-30.9	32	248.0	279.0	299.0	29.5	60		
ICN310319-32-8D	31.0-31.9	32	256.0	288.0	308.0	30.5	60		
ICN320229-32-8D	32.0-32.9	32	264.0	297.0	317.0	31.5	60		
ICN330339-32-8D	33.0-33.9	32	272.0	306.0	326.0	32.5	60	K33-38	
ICN340349-32-8D	34.0-34.9	32	280.0	315.0	335.0	33.5	60		
ICN350359-32-8D	35.0-35.9	32	288.0	324.0	344.0	34.5	60		
ICN360369-32-8D	36.0-36.9	32	296.0	333.0	353.0	35.5	60		
ICN370379-32-8D	37.0-37.9	32	304.0	342.0	362.0	36.5	60		
ICN380389-32-8D	38.0-38.9	32	312.0	351.0	371.0	37.5	60	K39-45	
ICN390399-32-8D	39.0-39.9	32	320.0	360.0	380.0	38.5	60		
ICN400409-32-8D	40.0-40.9	32	328.0	369.0	389.0	39.5	60		
ICN410419-32-8D	41.0-41.9	32	336.0	378.0	398.0	40.5	60		
ICN420429-50-8D	42.0-42.9	50	344.0	387.0	407.0	41.5	80		
ICN430439-50-8D	43.0-43.9	50	352.0	396.0	416.0	42.5	80	K39-45	
ICN440450-50-8D	44.0-45.0	50	360.0	405.0	425.0	43.5	80		

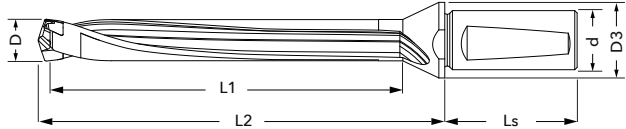
Insert pages :
 ICN...G page 5
 ICN...P page 11



ICN...12D Drilling Body



With Coolant Holes | Weldon Shank
Drilling Depth 12XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	D3	L1	L2	Ls	D	
ICN120129-16-12D	12.0-12.9	16	20	166.0	179.5	48	11.5	K12-16.9
ICN130139-16-12D	13.0-13.9	16	20	178.0	192.6	48	12.5	
ICN140149-16-12D	14.0-14.9	16	20	190.6	203.9	48	13.5	
ICN150159-20-12D	15.0-15.9	20	20	204.0	222.4	50	14.5	
ICN160169-20-12D	16.0-16.9	20	20	216.0	232.0	50	15.5	
ICN170179-20-12D	17.0-17.9	20	20	229.0	248.7	50	16.5	K17-20.9
ICN180189-25-12D	18.0-18.9	25	32	242.0	265.0	56	17.5	
ICN190199-25-12D	19.0-19.9	25	32	254.0	276.2	56	18.5	
ICN200209-25-12D	20.0-20.9	25	32	267.0	291.6	56	19.5	
ICN210219-25-12D	21.0-21.9	25	32	280.0	304.9	56	20.5	
ICN220229-25-12D	22.0-22.9	25	32	293.0	315.2	56	21.5	K21-26
ICN230239-32-12D	23.0-23.9	32	42	305.0	334.5	60	22.5	
ICN240249-32-12D	24.0-24.9	32	42	318.0	347.9	60	23.5	
ICN250260-32-12D	25.0-26.0	32	42	331.0	-	60	24.5	
ICN250260-32-12D	26.0-26.9	32	42	331	362.5	60	24.5	
ICN270279-32-12D	27.0-27.9	32	42	357.5	389.5	60	26.5	

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ICN...G page 2

ICN...P page 8

ICN...K page 14

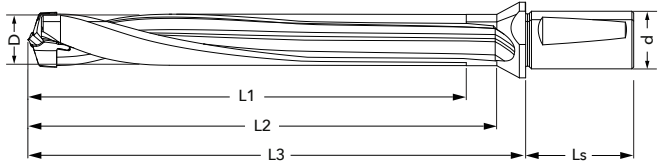
ICN...M page 17

ICN...S page 20

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ICN...12D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 12XD



Unit: mm

Specification	Drilling Dia.	Dimensions						Key
		d	L1	L2	L3	D	Ls	
ICN280289-32-12D	28.0-28.9	32	348.0	377.0	397.0	27.5	60	K27-32
ICN290299-32-12D	29.0-29.9	32	360.0	390.0	410.0	28.5	60	
ICN300309-32-12D	30.0-30.9	32	372.0	403.0	423.0	29.5	60	
ICN310319-32-12D	31.0-31.9	32	384.0	416.0	436.0	30.5	60	
ICN320229-32-12D	32.0-32.9	32	396.0	429.0	449.0	31.5	60	
ICN330339-32-12D	33.0-33.9	32	408.0	442.0	462.0	32.5	60	
ICN340349-32-12D	34.0-34.9	32	420.0	455.0	475.0	33.5	60	K33-38
ICN350359-32-12D	35.0-35.9	32	432.0	468.0	488.0	34.5	60	
ICN360369-32-12D	36.0-36.9	32	444.0	481.0	501.0	35.5	60	
ICN370379-32-12D	37.0-37.9	32	456.0	494.0	514.0	36.5	60	
ICN380389-32-12D	38.0-38.9	32	468.0	507.0	527.0	37.5	60	
ICN390399-32-12D	39.0-39.9	32	480.0	520.0	540.0	38.5	60	
ICN400409-32-12D	40.0-40.9	32	492.0	533.0	553.0	39.5	60	K39-45
ICN410419-32-12D	41.0-41.9	32	504.0	546.0	566.0	40.5	60	
ICN420429-50-12D	42.0-42.9	50	516.0	559.0	579.0	41.5	80	
ICN430439-50-12D	43.0-43.9	50	528.0	572.0	592.0	42.5	80	
ICN440449-50-12D	44.0-44.9	50	540.0	585.0	605.0	43.5	80	
ICN440450-50-12D	44.0-45.0	50	540.0	585.0	605.0	43.5	80	

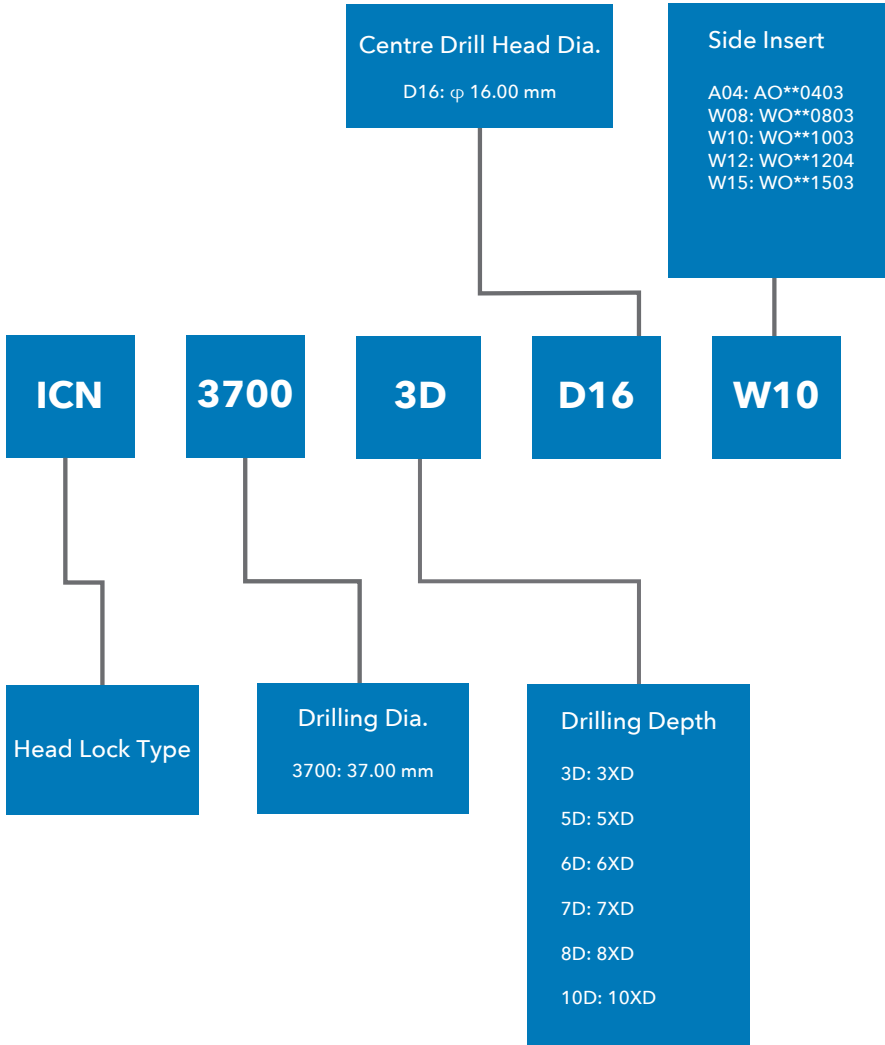
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ICN...G page 5

ICN...P page 11



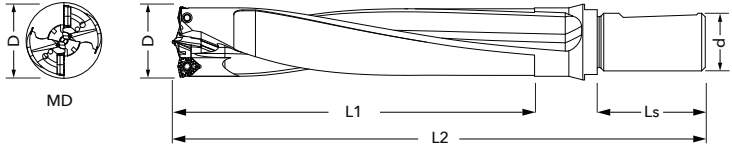
ICN Drill Body Coding System CombiHead





ICN...3D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 3XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN2800-3D-D14-A04	MD-140-P	AO**0403	32	84	118	60	28	K14-16.9	ICNM-025080	T9
ICN2858-3D-D15-A04	MD-150-P	AO**0403	32	86	120	60	28.58			
ICN2900-3D-D16-A04	MD-160-P	AO**0403	32	87	121	60	29			
ICN2936-3D-D16-A04	MD-160-P	AO**0403	32	89	123	60	29.36			
ICN3000-3D-D16-A04	MD-160-P	AO**0403	32	90	125	60	30	K17-19.9		
ICN3018-3D-D18-A04	MD-180-P	AO**0403	32	91	126	60	30.18			
ICN3096-3D-D18-A04	MD-180-P	AO**0403	32	93	128	60	30.96	K14-16.9	ICNM-030080	T10
ICN3100-3D-D18-A04	MD-180-P	AO**0403	32	94	129	60	31			
ICN3175-3D-D15-W08	MD-150-P	WO**0803	32	96	133	60	31.75			
ICN3200-3D-D15-W08	MD-150-P	WO**0803	32	97	134	60	32			
ICN3300-3D-D16-W08	MD-160-P	WO**0803	32	99	136	60	33			
ICN3320-3D-D16-W08	MD-160-P	WO**0803	32	100	137	60	33.2			
ICN3335-3D-D16-W08	MD-160-P	WO**0803	32	101	138	60	33.35			
ICN3400-3D-D18-W08	MD-180-P	WO**0803	32	102	139	60	34			
ICN3493-3D-D18-W08	MD-180-P	WO**0803	32	105	142	60	34.93			
ICN3500-3D-D18-W08	MD-180-P	WO**0803	32	106	144	60	35			
ICN3600-3D-D18-W08	MD-180-P	WO**0803	32	108	146	60	36	K17-19.9		
ICN3653-3D-D19-W08	MD-190-P	WO**0803	32	110	148	60	36.53			
ICN3700-3D-D16-W10	MD-160-P	WO**1003	32	111	149	60	37	K14-16.9	ICNM-040100	T15
ICN3750-3D-D16-W10	MD-160-P	WO**1003	32	113	151	60	37.5			
ICN3800-3D-D16-W10	MD-160-P	WO**1003	32	114	154	60	38			
ICN3810-3D-D16-W10	MD-160-P	WO**1003	32	115	155	60	38.1			

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AOMT... page 109

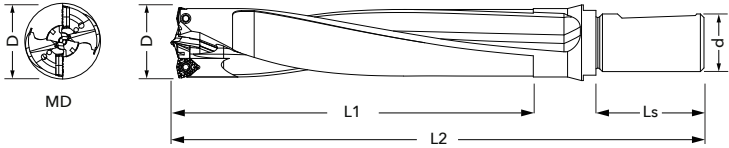
WOMT...W... page 109

MD.....* page 110



ICN...3D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 3XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions						Accessories		
			d	L1	L2	Ls	D				
ICN3900-3D-D18-W10	MD-180-P	WO**1003	32	117	157	60	39	K17-19.9	ICNM-040100	T15	
ICN3920-3D-D18-W10	MD-180-P	WO**1003	32	118	158	60	39.2				
ICN3970-3D-D18-W10	MD-180-P	WO**1003	32	120	160	60	39.7				
ICN4000-3D-D18-W10	MD-180-P	WO**1003	32	121	164	60	40				
ICN4100-3D-D19-W10	MD-190-P	WO**1003	32	123	166	60	41				
ICN4128-3D-D19-W10	MD-190-P	WO**1003	32	124	167	60	41.28				
ICN4200-3D-D19-W10	MD-190-P	WO**1204	50	126	170	80	42	K14-16.9			
ICN4300-3D-D16-W12	MD-160-P	WO**1204	50	129	173	80	43				
ICN4400-3D-D18-W12	MD-180-P	WO**1204	50	132	176	80	44	K17-19.9			
ICN4445-3D-D18-W12	MD-180-P	WO**1204	50	134	178	80	44.45				
ICN4500-3D-D18-W12	MD-180-P	WO**1204	50	135	179	80	45				
ICN4600-3D-D19-W12	MD-190-P	WO**1204	50	138	182	80	46				
ICN4700-3D-D20-W12	MD-200-P	WO**1204	50	141	185	80	47				
ICN4763-3D-D21-W12	MD-210-P	WO**1204	50	143	187	80	47.63				
ICN4800-3D-D21-W12	MD-210-P	WO**1204	50	144	189	80	48	K20-26.9			
ICN4900-3D-D22-W12	MD-220-P	WO**1204	50	147	192	80	49				
ICN5000-3D-D23-W12	MD-230-P	WO**1204	50	150	195	80	50				
ICN5080-3D-D24-W12	MD-240-P	WO**1204	50	153	198	80	50.8				
ICN5100-3D-D24-W12	MD-240-P	WO**1204	50	154	199	80	51				
ICN5200-3D-D25-W12	MD-250-P	WO**1204	50	156	201	80	52				
ICN5300-3D-D26-W12	MD-260-P	WO**1204	50	159	204	80	53				
ICN5398-3D-D27-W12	MD-270-P	WO**1204	50	162	207	80	53.98				
ICN5400-3D-D27-W12	MD-270-P	WO**1204	50	163	208	80	54				
ICN5500-3D-D28-W12	MD-280-P	WO**1204	50	165	210	80	55				

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WOMT...W... page 109

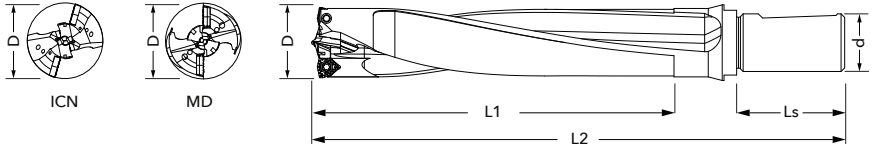
MD.....* page 110



ICN...3D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 3XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN5600-3D-D20-W15	MD-200-P	WO**1503	50	168	213	80	56	K17-19.9	ICNM-050100	T20
ICN5700-3D-D21-W15	MD-210-P	WO**1503	50	171	216	80	57			
ICN5800-3D-D22-W15	MD-220-P	WO**1503	50	174	219	80	58			
ICN5900-3D-D23-W15	MD-230-P	WO**1503	50	177	222	80	59			
ICN6000-3D-D24-W15	MD-240-P	WO**1503	50	180	225	80	60			
ICN6100-3D-D25-W15	MD-250-P	WO**1503	50	183	228	80	61			
ICN6200-3D-D26-W15	MD-260-P	WO**1503	50	186	231	80	62			
ICN6300-3D-D27-W15	MD-270-P	WO**1503	50	189	234	80	63			
ICN6400-3D-D28-W15	MD-280-P	WO**1503	50	192	237	80	64			
ICN6500-3D-ICN29-W15	ICN-290-P	WO**1503	50	195	240	80	65			
ICN6600-3D-ICN30-W15	ICN-300-P	WO**1503	50	198	243	80	66			
ICN6700-3D-ICN31-W15	ICN-310-P	WO**1503	50	201	246	80	67			
ICN6800-3D-ICN32-W15	ICN-320-P	WO**1503	50	204	249	80	68			
ICN6900-3D-ICN33-W15	ICN-330-P	WO**1503	50	207	252	80	69			
ICN7000-3D-ICN34-W15	ICN-340-P	WO**1503	50	210	255	80	70			
ICN7100-3D-ICN35-W15	ICN-350-P	WO**1503	50	213	292	80	71			
ICN7200-3D-ICN36-W15	ICN-360-P	WO**1503	50	216	296	80	72			
ICN7300-3D-ICN37-W15	ICN-370-P	WO**1503	50	219	300	80	73			
ICN7400-3D-ICN38-W15	ICN-380-P	WO**1503	50	222	304	80	74			
ICN7500-3D-ICN39-W15	ICN-390-P	WO**1503	50	225	308	80	75			
ICN7600-3D-ICN40-W15	ICN-400-P	WO**1503	50	228	312	80	76			
ICN7700-3D-ICN41-W15	ICN-410-P	WO**1503	50	231	316	80	77			
ICN7800-3D-ICN42-W15	ICN-420-P	WO**1503	50	234	320	80	78			
ICN7900-3D-ICN43-W15	ICN-430-P	WO**1503	50	237	324	80	79			
ICN8000-3D-ICN44-W15	ICN-440-P	WO**1503	50	240	330	80	80			

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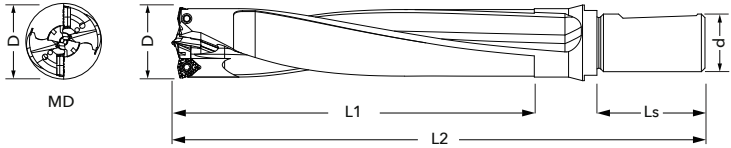
WOMT...W... page 109

MD.....* page 110



ICN...5D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 5XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN2800-5D-D14-A04	MD-140-P	AO**0403	32	140	174	60	28	K14-16.9	ICNM-025080	T9
ICN2858-5D-D15-A04	MD-150-P	AO**0403	32	143	177	60	28.58			
ICN2900-5D-D16-A04	MD-160-P	AO**0403	32	145	179	60	29			
ICN2936-5D-D16-A04	MD-160-P	AO**0403	32	147	181	60	29.36			
ICN3000-5D-D16-A04	MD-160-P	AO**0403	32	150	185	60	30			
ICN3018-5D-D18-A04	MD-180-P	AO**0403	32	151	186	60	30.18	K17-19.9		
ICN3096-5D-D18-A04	MD-180-P	AO**0403	32	155	190	60	30.96			
ICN3100-5D-D18-A04	MD-180-P	AO**0403	32	156	191	60	31	K14-16.9	ICNM-030080	T10
ICN3175-5D-D15-W08	MD-150-P	WO**0803	32	159	196	60	31.75			
ICN3200-5D-D15-W08	MD-150-P	WO**0803	32	160	197	60	32			
ICN3300-5D-D16-W08	MD-160-P	WO**0803	32	165	202	60	33			
ICN3320-5D-D16-W08	MD-160-P	WO**0803	32	166	203	60	33.2			
ICN3335-5D-D16-W08	MD-160-P	WO**0803	32	167	204	60	33.35			
ICN3400-5D-D18-W08	MD-180-P	WO**0803	32	170	207	60	34			
ICN3493-5D-D18-W08	MD-180-P	WO**0803	32	175	212	60	34.93			
ICN3500-5D-D18-W08	MD-180-P	WO**0803	32	176	214	60	35			
ICN3600-5D-D18-W08	MD-180-P	WO**0803	32	180	218	60	36			
ICN3653-5D-D19-W08	MD-190-P	WO**0803	32	183	221	60	36.53	K17-19.9		
ICN3700-5D-D16-W10	MD-160-P	WO**1003	32	185	223	60	37			
ICN3750-5D-D16-W10	MD-160-P	WO**1003	32	188	226	60	37.5	K14-16.9	ICNM-040100	T15
ICN3800-5D-D16-W10	MD-160-P	WO**1003	32	190	230	60	38			
ICN3810-5D-D16-W10	MD-160-P	WO**1003	32	191	231	60	38.1			

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AOMT... page 109

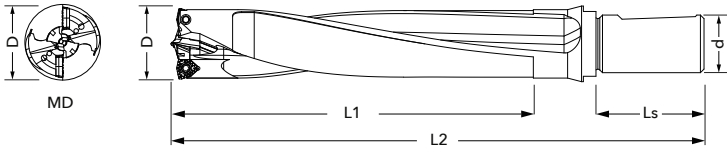
WOMT...W... page 109

MD.....* page 110



ICN...5D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 5XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN3900-5D-D18-W10	MD-180-P	WO**1003	32	195	235	60	39	K17-19.9	ICNM-040100	T15
ICN3920-5D-D18-W10	MD-180-P	WO**1003	32	196	236	60	39.2			
ICN3970-5D-D18-W10	MD-180-P	WO**1003	32	199	239	60	39.7			
ICN4000-5D-D18-W10	MD-180-P	WO**1003	32	200	243	60	40			
ICN4100-5D-D19-W10	MD-190-P	WO**1003	32	205	248	60	41			
ICN4128-5D-D19-W10	MD-190-P	WO**1003	32	207	250	60	41.28			
ICN4200-5D-D19-W10	MD-190-P	WO**1204	50	210	254	80	42			
ICN4300-5D-D16-W12	MD-160-P	WO**1204	50	215	259	80	43			
ICN4400-5D-D18-W12	MD-180-P	WO**1204	50	220	264	80	44			
ICN4445-5D-D18-W12	MD-180-P	WO**1204	50	223	267	80	44.45			
ICN4500-5D-D18-W12	MD-180-P	WO**1204	50	225	269	80	45	K17-19.9		
ICN4600-5D-D19-W12	MD-190-P	WO**1204	50	230	274	80	46			
ICN4700-5D-D20-W12	MD-200-P	WO**1204	50	235	279	80	47	K20-26.9		
ICN4763-5D-D21-W12	MD-210-P	WO**1204	50	139	183	80	47.63			
ICN4800-5D-D21-W12	MD-210-P	WO**1204	50	240	285	80	48			
ICN4900-5D-D22-W12	MD-220-P	WO**1204	50	245	290	80	49	K20-26.9		
ICN5000-5D-D23-W12	MD-230-P	WO**1204	50	250	295	80	50			
ICN5080-5D-D24-W12	MD-240-P	WO**1204	50	254	299	80	50.8			
ICN5100-5D-D24-W12	MD-240-P	WO**1204	50	255	300	80	51			
ICN5200-5D-D25-W12	MD-250-P	WO**1204	50	260	305	80	52	K27-32		
ICN5300-5D-D26-W12	MD-260-P	WO**1204	50	265	310	80	53			
ICN5398-5D-D27-W12	MD-270-P	WO**1204	50	270	315	80	53.98			
ICN5400-5D-D27-W12	MD-270-P	WO**1204	50	271	316	80	54			
ICN5500-5D-D28-W12	MD-280-P	WO**1204	50	275	320	80	55			

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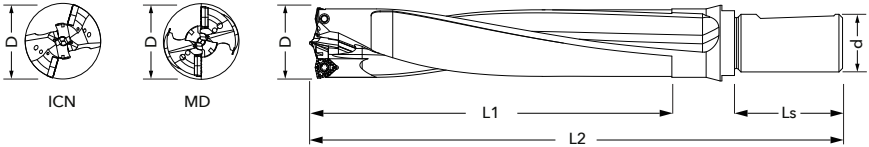
MD.....* page 110



ICN...5D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 5XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN5600-5D-D20-W15	MD-200-P	WO**1503	50	280	325	80	56	K17-19.9	ICNM-050100	T20
ICN5700-5D-D21-W15	MD-210-P	WO**1503	50	285	330	80	57			
ICN5800-5D-D22-W15	MD-220-P	WO**1503	50	290	335	80	58			
ICN5900-5D-D23-W15	MD-230-P	WO**1503	50	295	340	80	59			
ICN6000-5D-D24-W15	MD-240-P	WO**1503	50	300	345	80	60			
ICN6100-5D-D25-W15	MD-250-P	WO**1503	50	305	350	80	61			
ICN6200-5D-D26-W15	MD-260-P	WO**1503	50	310	355	80	62	K20-26		
ICN6300-5D-D27-W15	MD-270-P	WO**1503	50	315	360	80	63			
ICN6400-5D-D28-W15	MD-280-P	WO**1503	50	320	365	80	64			
ICN6500-5D-ICN29-W15	ICN-290-P	WO**1503	50	325	370	80	65			
ICN6600-5D-ICN30-W15	ICN-300-P	WO**1503	50	330	375	80	66			
ICN6700-5D-ICN31-W15	ICN-310-P	WO**1503	50	335	380	80	67			
ICN6800-5D-ICN32-W15	ICN-320-P	WO**1503	50	340	385	80	68	K27-32		
ICN6900-5D-ICN33-W15	ICN-330-P	WO**1503	50	345	390	80	69			
ICN7000-5D-ICN34-W15	ICN-340-P	WO**1503	50	350	395	80	70			
ICN7100-5D-ICN35-W15	ICN-350-P	WO**1503	50	355	434	80	71			
ICN7200-5D-ICN36-W15	ICN-360-P	WO**1503	50	360	440	80	72			
ICN7300-5D-ICN37-W15	ICN-370-P	WO**1503	50	365	446	80	73			
ICN7400-5D-ICN38-W15	ICN-380-P	WO**1503	50	370	452	80	74	K33-38		
ICN7500-5D-ICN39-W15	ICN-390-P	WO**1503	50	375	458	80	75			
ICN7600-5D-ICN40-W15	ICN-400-P	WO**1503	50	380	464	80	76			
ICN7700-5D-ICN41-W15	ICN-410-P	WO**1503	50	385	470	80	77			
ICN7800-5D-ICN42-W15	ICN-420-P	WO**1503	50	390	476	80	78			
ICN7900-5D-ICN43-W15	ICN-430-P	WO**1503	50	395	482	80	79			
ICN8000-5D-ICN44-W15	ICN-440-P	WO**1503	50	400	489	80	80	K39-45		

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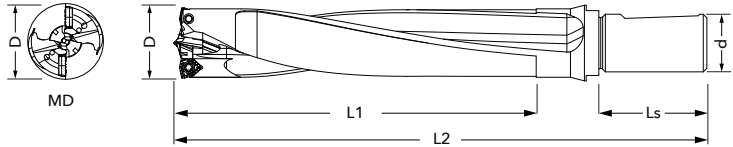
WOMT...W... page 109

MD.....* page 110



ICN...6D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 6XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN2800-6D-D14-A04	MD-140-P	AO**0403	32	168	202	60	28	K14-16.9	ICNM-025080	T9
ICN2858-6D-D15-A04	MD-150-P	AO**0403	32	172	206	60	28.58			
ICN2900-6D-D16-A04	MD-160-P	AO**0403	32	174	208	60	29			
ICN2936-6D-D16-A04	MD-160-P	AO**0403	32	177	211	60	29.36			
ICN3000-6D-D16-A04	MD-160-P	AO**0403	32	180	215	60	30			
ICN3018-6D-D18-A04	MD-180-P	AO**0403	32	182	217	60	30.18			
ICN3096-6D-D18-A04	MD-180-P	AO**0403	32	186	221	60	30.96	K17-19.9	ICNM-030080	T10
ICN3100-6D-D18-A04	MD-180-P	AO**0403	32	187	222	60	31			
ICN3175-6D-D15-W08	MD-150-P	WO**0803	32	191	228	60	31.75	K14-16.9	ICNM-030080	T10
ICN3200-6D-D15-W08	MD-150-P	WO**0803	32	192	229	60	32			
ICN3300-6D-D16-W08	MD-160-P	WO**0803	32	198	235	60	33			
ICN3320-6D-D16-W08	MD-160-P	WO**0803	32	200	237	60	33.2			
ICN3335-6D-D16-W08	MD-160-P	WO**0803	32	201	238	60	33.35			
ICN3400-6D-D18-W08	MD-180-P	WO**0803	32	204	241	60	34			
ICN3493-6D-D18-W08	MD-180-P	WO**0803	32	210	247	60	34.93	K17-19.9	ICNM-040100	T15
ICN3500-6D-D18-W08	MD-180-P	WO**0803	32	211	249	60	35			
ICN3600-6D-D18-W08	MD-180-P	WO**0803	32	216	254	60	36	K14-16.9	ICNM-040100	T15
ICN3653-6D-D19-W08	MD-190-P	WO**0803	32	220	258	60	36.53			
ICN3700-6D-D16-W10	MD-160-P	WO**1003	32	222	260	60	37	K14-16.9	ICNM-040100	T15
ICN3750-6D-D16-W10	MD-160-P	WO**1003	32	225	263	60	37.5			
ICN3800-6D-D16-W10	MD-160-P	WO**1003	32	228	268	60	38	K14-16.9	ICNM-040100	T15
ICN3810-6D-D16-W10	MD-160-P	WO**1003	32	229	269	60	38.1			

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WOMT...W... page 109

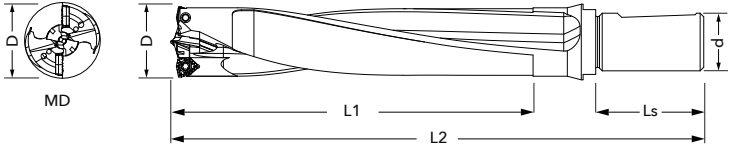
MD.....* page 110



ICN...6D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 6XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions						Accessories		
			d	L1	L2	Ls	D				
ICN3900-6D-D18-W10	MD-180-P	WO**1003	32	234	274	60	39	K17-19.9	ICNM-040100	T15	
ICN3920-6D-D18-W10	MD-180-P	WO**1003	32	236	276	60	39.2				
ICN3970-6D-D18-W10	MD-180-P	WO**1003	32	239	279	60	39.7				
ICN4000-6D-D18-W10	MD-180-P	WO**1003	32	240	283	60	40				
ICN4100-6D-D19-W10	MD-190-P	WO**1003	32	246	289	60	41				
ICN4128-6D-D19-W10	MD-190-P	WO**1003	32	248	291	60	41.28				
ICN4200-6D-D19-W10	MD-190-P	WO**1204	50	252	296	80	42	K14-16.9			
ICN4300-6D-D16-W12	MD-160-P	WO**1204	50	258	302	80	43				
ICN4400-6D-D18-W12	MD-180-P	WO**1204	50	264	308	80	44	K17-19.9			
ICN4445-6D-D18-W12	MD-180-P	WO**1204	50	267	311	80	44.45				
ICN4500-6D-D18-W12	MD-180-P	WO**1204	50	270	314	80	45				
ICN4600-6D-D19-W12	MD-190-P	WO**1204	50	276	320	80	46	K20-26.9			
ICN4700-6D-D20-W12	MD-200-P	WO**1204	50	282	326	80	47				
ICN4763-6D-D21-W12	MD-210-P	WO**1204	50	286	330	80	47.63	K27-32			
ICN4800-6D-D21-W12	MD-210-P	WO**1204	50	288	333	80	48				
ICN4900-6D-D22-W12	MD-220-P	WO**1204	50	294	339	80	49				
ICN5000-6D-D23-W12	MD-230-P	WO**1204	50	300	345	80	50				
ICN5080-6D-D24-W12	MD-240-P	WO**1204	50	305	350	80	50.8				
ICN5100-6D-D24-W12	MD-240-P	WO**1204	50	306	351	80	51				
ICN5200-6D-D25-W12	MD-250-P	WO**1204	50	312	357	80	52				
ICN5300-6D-D26-W12	MD-260-P	WO**1204	50	318	363	80	53				
ICN5398-6D-D27-W12	MD-270-P	WO**1204	50	324	369	80	53.98				
ICN5400-6D-D27-W12	MD-270-P	WO**1204	50	325	370	80	54				
ICN5500-6D-D28-W12	MD-280-P	WO**1204	50	330	375	80	55				

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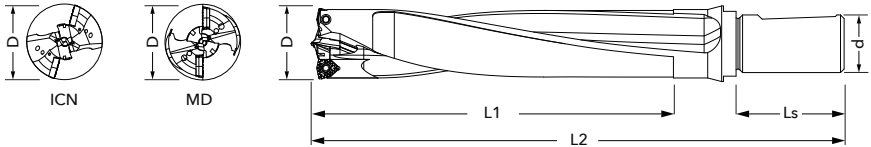
WOMT...W... page 109

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ICN...6D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 6XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN5600-6D-D20-W15	MD-200-P	WO**1503	50	336	381	80	56	K17-19.9	ICNM-050100	T20
ICN5700-6D-D21-W15	MD-210-P	WO**1503	50	342	387	80	57			
ICN5800-6D-D22-W15	MD-220-P	WO**1503	50	348	393	80	58			
ICN5900-6D-D23-W15	MD-230-P	WO**1503	50	354	399	80	59			
ICN6000-6D-D24-W15	MD-240-P	WO**1503	50	360	405	80	60			
ICN6100-6D-D25-W15	MD-250-P	WO**1503	50	366	411	80	61			
ICN6200-6D-D26-W15	MD-260-P	WO**1503	50	372	417	80	62	K20-26		
ICN6300-6D-D27-W15	MD-270-P	WO**1503	50	378	423	80	63			
ICN6400-6D-D28-W15	MD-280-P	WO**1503	50	384	429	80	64			
ICN6500-6D-ICN29-W15	ICN-290-P	WO**1503	50	390	435	80	65			
ICN6600-6D-ICN30-W15	ICN-300-P	WO**1503	50	396	441	80	66			
ICN6700-6D-ICN31-W15	ICN-310-P	WO**1503	50	402	447	80	67			
ICN6800-6D-ICN32-W15	ICN-320-P	WO**1503	50	408	453	80	68	K27-32		
ICN6900-6D-ICN33-W15	ICN-330-P	WO**1503	50	414	459	80	69			
ICN7000-6D-ICN34-W15	ICN-340-P	WO**1503	50	420	465	80	70			
ICN7100-6D-ICN35-W15	ICN-350-P	WO**1503	50	426	505	80	71			
ICN7200-6D-ICN36-W15	ICN-360-P	WO**1503	50	432	512	80	72			
ICN7300-6D-ICN37-W15	ICN-370-P	WO**1503	50	438	519	80	73			
ICN7400-6D-ICN38-W15	ICN-380-P	WO**1503	50	444	526	80	74	K33-38		
ICN7500-6D-ICN39-W15	ICN-390-P	WO**1503	50	450	533	80	75			
ICN7600-6D-ICN40-W15	ICN-400-P	WO**1503	50	456	540	80	76			
ICN7700-6D-ICN41-W15	ICN-410-P	WO**1503	50	462	547	80	77			
ICN7800-6D-ICN42-W15	ICN-420-P	WO**1503	50	468	554	80	78			
ICN7900-6D-ICN43-W15	ICN-430-P	WO**1503	50	474	561	80	79			
ICN8000-6D-ICN44-W15	ICN-440-P	WO**1503	50	480	568	80	80	K39-45		

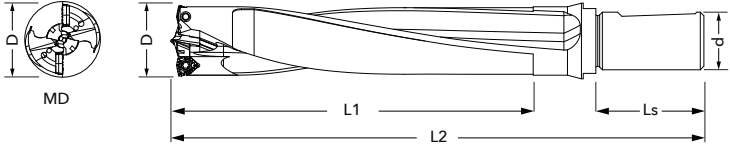
Insert pages :
 WOMT...W... page 109
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ICN...7D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 7XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN2800-7D-D14-A04	MD-140-P	AO**0403	32	196	230	60	28	K14-16.9	ICNM-025080	T9
ICN2858-7D-D15-A04	MD-150-P	AO**0403	32	201	235	60	28.58			
ICN2900-7D-D16-A04	MD-160-P	AO**0403	32	203	237	60	29			
ICN2936-7D-D16-A04	MD-160-P	AO**0403	32	206	240	60	29.36			
ICN3000-7D-D16-A04	MD-160-P	AO**0403	32	210	245	60	30			
ICN3018-7D-D18-A04	MD-180-P	AO**0403	32	212	247	60	30.18	K17-19.9		
ICN3096-7D-D18-A04	MD-180-P	AO**0403	32	217	252	60	30.96			
ICN3100-7D-D18-A04	MD-180-P	AO**0403	32	218	253	60	31	K14-16.9	ICNM-030080	T10
ICN3175-7D-D15-W08	MD-150-P	WO**0803	32	223	260	60	31.75			
ICN3200-7D-D15-W08	MD-150-P	WO**0803	32	224	261	60	32			
ICN3300-7D-D16-W08	MD-160-P	WO**0803	32	231	268	60	33			
ICN3320-7D-D16-W08	MD-160-P	WO**0803	32	233	270	60	33.2			
ICN3335-7D-D16-W08	MD-160-P	WO**0803	32	234	271	60	33.35	K17-19.9		
ICN3400-7D-D18-W08	MD-180-P	WO**0803	32	238	275	60	34			
ICN3493-7D-D18-W08	MD-180-P	WO**0803	32	245	282	60	34.93	K14-16.9		
ICN3500-7D-D18-W08	MD-180-P	WO**0803	32	246	284	60	35			
ICN3600-7D-D18-W08	MD-180-P	WO**0803	32	252	290	60	36			
ICN3653-7D-D19-W08	MD-190-P	WO**0803	32	256	294	60	36.53	K14-16.9		
ICN3700-7D-D16-W10	MD-160-P	WO**1003	32	259	297	60	37			
ICN3750-7D-D16-W10	MD-160-P	WO**1003	32	263	301	60	37.5	K14-16.9	ICNM-040100	T15
ICN3800-7D-D16-W10	MD-160-P	WO**1003	32	266	306	60	38			
ICN3810-7D-D16-W10	MD-160-P	WO**1003	32	267	307	60	38.1			

Insert pages :

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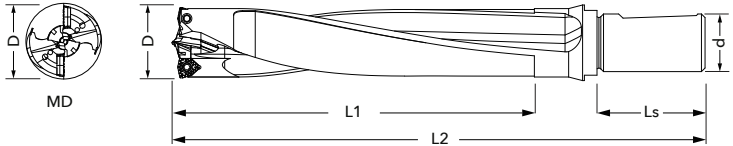
WOMT...W... page 109

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ICN...7D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 7XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN3900-7D-D18-W10	MD-180-P	WO**1003	32	273	313	60	39	K17-19.9	ICNM-040100	T15
ICN3920-7D-D18-W10	MD-180-P	WO**1003	32	275	315	60	39.2			
ICN3970-7D-D18-W10	MD-180-P	WO**1003	32	278	318	60	39.7			
ICN4000-7D-D18-W10	MD-180-P	WO**1003	32	280	323	60	40			
ICN4100-7D-D19-W10	MD-190-P	WO**1003	32	287	330	60	41			
ICN4128-7D-D19-W10	MD-190-P	WO**1003	32	289	332	60	41.28			
ICN4200-7D-D19-W10	MD-190-P	WO**1204	50	294	338	80	42	K14-16.9		
ICN4300-7D-D16-W12	MD-160-P	WO**1204	50	301	345	80	43			
ICN4400-7D-D18-W12	MD-180-P	WO**1204	50	308	352	80	44	K17-19.9		
ICN4445-7D-D18-W12	MD-180-P	WO**1204	50	312	356	80	44.45			
ICN4500-7D-D18-W12	MD-180-P	WO**1204	50	315	359	80	45			
ICN4600-7D-D19-W12	MD-190-P	WO**1204	50	322	366	80	46			
ICN4700-7D-D20-W12	MD-200-P	WO**1204	50	329	373	80	47			
ICN4763-7D-D21-W12	MD-210-P	WO**1204	50	334	378	80	47.63			
ICN4800-7D-D21-W12	MD-210-P	WO**1204	50	336	381	80	48	K20-26.9		
ICN4900-7D-D22-W12	MD-220-P	WO**1204	50	343	388	80	49			
ICN5000-7D-D23-W12	MD-230-P	WO**1204	50	350	395	80	50			
ICN5080-7D-D24-W12	MD-240-P	WO**1204	50	356	401	80	50.8			
ICN5100-7D-D24-W12	MD-240-P	WO**1204	50	357	402	80	51			
ICN5200-7D-D25-W12	MD-250-P	WO**1204	50	364	409	80	52			
ICN5300-7D-D26-W12	MD-260-P	WO**1204	50	371	416	80	53	K27-32		
ICN5398-7D-D27-W12	MD-270-P	WO**1204	50	378	423	80	53.98			
ICN5400-7D-D27-W12	MD-270-P	WO**1204	50	379	424	80	54			
ICN5500-7D-D28-W12	MD-280-P	WO**1204	50	385	430	80	55			

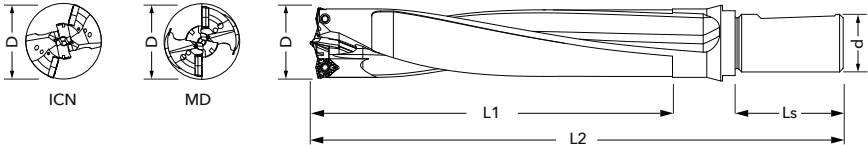
Insert pages :
 WOMT...W... page 109
 MD.....* page 110



ICN...7D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 7XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions						Accessories		
			d	L1	L2	Ls	D				
ICN5600-7D-D20-W15	MD-200-P	WO**1503	50	392	437	80	56	K17-19.9	ICNM-050100	T20	
ICN5700-7D-D21-W15	MD-210-P	WO**1503	50	399	444	80	57				
ICN5800-7D-D22-W15	MD-220-P	WO**1503	50	406	451	80	58				
ICN5900-7D-D23-W15	MD-230-P	WO**1503	50	413	458	80	59				
ICN6000-7D-D24-W15	MD-240-P	WO**1503	50	420	465	80	60				
ICN6100-7D-D25-W15	MD-250-P	WO**1503	50	427	472	80	61				
ICN6200-7D-D26-W15	MD-260-P	WO**1503	50	434	479	80	62				
ICN6300-7D-D27-W15	MD-270-P	WO**1503	50	441	486	80	63	K27-32			
ICN6400-7D-D28-W15	MD-280-P	WO**1503	50	448	493	80	64				
ICN6500-7D-ICN29-W15	ICN-290-P	WO**1503	50	455	500	80	65				
ICN6600-7D-ICN30-W15	ICN-300-P	WO**1503	50	462	507	80	66				
ICN6700-7D-ICN31-W15	ICN-310-P	WO**1503	50	469	514	80	67	K33-38			
ICN6800-7D-ICN32-W15	ICN-320-P	WO**1503	50	476	521	80	68				
ICN6900-7D-ICN33-W15	ICN-330-P	WO**1503	50	483	528	80	69				
ICN7000-7D-ICN34-W15	ICN-340-P	WO**1503	50	490	535	80	70				
ICN7100-7D-ICN35-W15	ICN-350-P	WO**1503	50	497	576	80	71				
ICN7200-7D-ICN36-W15	ICN-360-P	WO**1503	50	504	584	80	72				
ICN7300-7D-ICN37-W15	ICN-370-P	WO**1503	50	511	592	80	73				
ICN7400-7D-ICN38-W15	ICN-380-P	WO**1503	50	518	600	80	74	K39-45			
ICN7500-7D-ICN39-W15	ICN-390-P	WO**1503	50	525	608	80	75				
ICN7600-7D-ICN40-W15	ICN-400-P	WO**1503	50	532	616	80	76				
ICN7700-7D-ICN41-W15	ICN-410-P	WO**1503	50	539	624	80	77				
ICN7800-7D-ICN42-W15	ICN-420-P	WO**1503	50	546	632	80	78				
ICN7900-7D-ICN43-W15	ICN-430-P	WO**1503	50	553	640	80	79				
ICN8000-7D-ICN44-W15	ICN-440-P	WO**1503	50	560	648	80	80				

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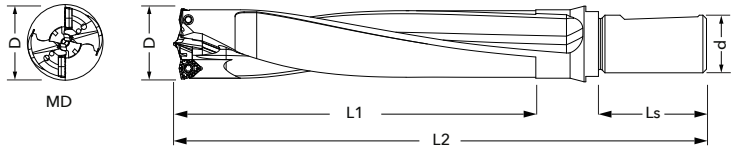
WOMT...W... page 109

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ICN...8D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 8XD



Unit: mm

Specification	Center Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN2800-8D-D14-A04	MD-140-P	AO**0403	32	224	258	60	28	K14-16.9	ICNM-025080	T9
ICN2858-8D-D15-A04	MD-150-P	AO**0403	32	229	263	60	28.58			
ICN2900-8D-D16-A04	MD-160-P	AO**0403	32	232	266	60	29			
ICN2936-8D-D16-A04	MD-160-P	AO**0403	32	235	269	60	29.36			
ICN3000-8D-D16-A04	MD-160-P	AO**0403	32	240	275	60	30			
ICN3018-8D-D18-A04	MD-180-P	AO**0403	32	242	277	60	30.18			
ICN3096-8D-D18-A04	MD-180-P	AO**0403	32	248	283	60	30.96	K17-19.9	ICNM-030080	T10
ICN3100-8D-D18-A04	MD-180-P	AO**0403	32	249	284	60	31			
ICN3175-8D-D15-W08	MD-150-P	WO**0803	32	254	291	60	31.75	K14-16.9	ICNM-030080	T10
ICN3200-8D-D15-W08	MD-150-P	WO**0803	32	256	293	60	32			
ICN3300-8D-D16-W08	MD-160-P	WO**0803	32	264	301	60	33			
ICN3320-8D-D16-W08	MD-160-P	WO**0803	32	266	303	60	33.2			
ICN3335-8D-D16-W08	MD-160-P	WO**0803	32	267	304	60	33.35			
ICN3400-8D-D18-W08	MD-180-P	WO**0803	32	272	309	60	34			
ICN3493-8D-D18-W08	MD-180-P	WO**0803	32	280	317	60	34.93	K17-19.9	ICNM-040100	T15
ICN3500-8D-D18-W08	MD-180-P	WO**0803	32	281	319	60	35			
ICN3600-8D-D18-W08	MD-180-P	WO**0803	32	288	326	60	36			
ICN3653-8D-D19-W08	MD-190-P	WO**0803	32	293	331	60	36.53	K14-16.9	ICNM-040100	T15
ICN3700-8D-D16-W10	MD-160-P	WO**1003	32	296	334	60	37			
ICN3750-8D-D16-W10	MD-160-P	WO**1003	32	300	338	60	37.5	K14-16.9	ICNM-040100	T15
ICN3800-8D-D16-W10	MD-160-P	WO**1003	32	304	344	60	38			
ICN3810-8D-D16-W10	MD-160-P	WO**1003	32	305	345	60	38.1			

Insert pages :

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WOMT...W... page 109

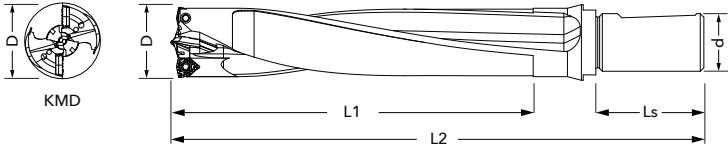
MD.....* page 110



ICN...8D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 8XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories			
			d	L1	L2	Ls	D				
ICN3900-8D-D18-W10	MD-180-P	WO**1003	32	312	352	60	39	K17-19.9	ICNM-040100	T15	
ICN3920-8D-D18-W10	MD-180-P	WO**1003	32	314	354	60	39.2				
ICN3970-8D-D18-W10	MD-180-P	WO**1003	32	318	358	60	39.7				
ICN4000-8D-D18-W10	MD-180-P	WO**1003	32	320	363	60	40				
ICN4100-8D-D19-W10	MD-190-P	WO**1003	32	328	371	60	41				
ICN4128-8D-D19-W10	MD-190-P	WO**1003	32	331	374	60	41.28				
ICN4200-8D-D19-W10	MD-190-P	WO**1204	50	336	380	80	42				
ICN4300-8D-D16-W12	MD-160-P	WO**1204	50	344	388	80	43				K14-16.9
ICN4400-8D-D18-W12	MD-180-P	WO**1204	50	352	396	80	44				K17-19.9
ICN4445-8D-D18-W12	MD-180-P	WO**1204	50	356	400	80	44.45				
ICN4500-8D-D18-W12	MD-180-P	WO**1204	50	360	404	80	45				
ICN4600-8D-D19-W12	MD-190-P	WO**1204	50	368	412	80	46				
ICN4700-8D-D20-W12	MD-200-P	WO**1204	50	376	420	80	47	K20-26.9			
ICN4763-8D-D21-W12	MD-210-P	WO**1204	50	382	426	80	47.63				
ICN4800-8D-D21-W12	MD-210-P	WO**1204	50	384	429	80	48				
ICN4900-8D-D22-W12	MD-220-P	WO**1204	50	392	437	80	49	K27-32			
ICN5000-8D-D23-W12	MD-230-P	WO**1204	50	400	445	80	50				
ICN5080-8D-D24-W12	MD-240-P	WO**1204	50	407	452	80	50.8				
ICN5100-8D-D24-W12	MD-240-P	WO**1204	50	408	453	80	51				
ICN5200-8D-D25-W12	MD-250-P	WO**1204	50	416	461	80	52				
ICN5300-8D-D26-W12	MD-260-P	WO**1204	50	424	469	80	53				
ICN5398-8D-D27-W12	MD-270-P	WO**1204	50	432	477	80	53.98				
ICN5400-8D-D27-W12	MD-270-P	WO**1204	50	433	478	80	54				
ICN5500-8D-D28-W12	MD-280-P	WO**1204	50	440	485	80	55				

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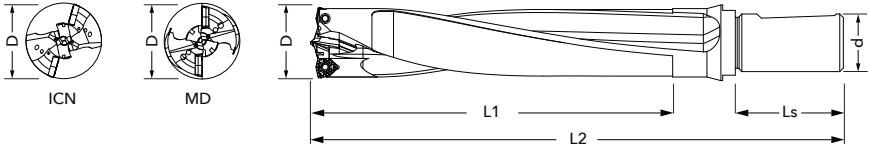
WOMT...W... page 109

MD.....* page 110

ICN...8D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 8XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN5600-8D-D20-W15	MD-200-P	WO**1503	50	448	493	80	56	K17-19.9	ICNM-050100	T20
ICN5700-8D-D21-W15	MD-210-P	WO**1503	50	456	501	80	57			
ICN5800-8D-D22-W15	MD-220-P	WO**1503	50	464	509	80	58			
ICN5900-8D-D23-W15	MD-230-P	WO**1503	50	472	517	80	59			
ICN6000-8D-D24-W15	MD-240-P	WO**1503	50	480	525	80	60			
ICN6100-8D-D25-W15	MD-250-P	WO**1503	50	488	533	80	61			
ICN6200-8D-D26-W15	MD-260-P	WO**1503	50	496	541	80	62	K20-26		
ICN6300-8D-D27-W15	MD-270-P	WO**1503	50	504	549	80	63			
ICN6400-8D-D28-W15	MD-280-P	WO**1503	50	512	557	80	64			
ICN6500-8D-ICN29-W15	ICN-290-P	WO**1503	50	520	565	80	65			
ICN6600-8D-ICN30-W15	ICN-300-P	WO**1503	50	528	573	80	66			
ICN6700-8D-ICN31-W15	ICN-310-P	WO**1503	50	536	581	80	67			
ICN6800-8D-ICN32-W15	ICN-320-P	WO**1503	50	544	589	80	68	K27-32		
ICN6900-8D-ICN33-W15	ICN-330-P	WO**1503	50	552	597	80	69			
ICN7000-8D-ICN34-W15	ICN-340-P	WO**1503	50	560	605	80	70			
ICN7100-8D-ICN35-W15	ICN-350-P	WO**1503	50	568	647	80	71			
ICN7200-8D-ICN36-W15	ICN-360-P	WO**1503	50	576	656	80	72			
ICN7300-8D-ICN37-W15	ICN-370-P	WO**1503	50	584	673	80	73			
ICN7400-8D-ICN38-W15	ICN-380-P	WO**1503	50	592	682	80	74	K33-38		
ICN7500-8D-ICN39-W15	ICN-390-P	WO**1503	50	600	691	80	75			
ICN7600-8D-ICN40-W15	ICN-400-P	WO**1503	50	608	670	80	76			
ICN7700-8D-ICN41-W15	ICN-410-P	WO**1503	50	616	679	80	77			
ICN7800-8D-ICN42-W15	ICN-420-P	WO**1503	50	624	688	80	78			
ICN7900-8D-ICN43-W15	ICN-430-P	WO**1503	50	632	697	80	79			
ICN8000-8D-ICN44-W15	ICN-440-P	WO**1503	50	640	706	80	80	K39-45		

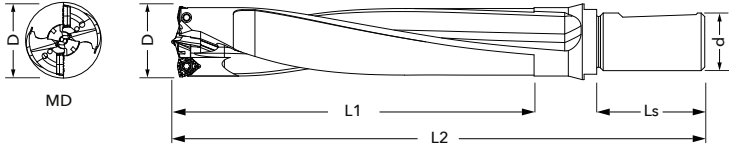
Insert pages :
 WOMT...W... page 109
 MD.....* page 110



ICN...10D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 10XD



Unit: mm

Specification	Centre Drill	Side Insert	Dimensions					Accessories		
			d	L1	L2	Ls	D			
ICN2800-10D-D14-A04	MD-140-P	AO**0403	32	280	314	60	28	K14-16.9	ICNM-025080	T9
ICN2858-10D-D15-A04	MD-150-P	AO**0403	32	286	320	60	28.58			
ICN2900-10D-D16-A04	MD-160-P	AO**0403	32	290	324	60	29			
ICN2936-10D-D16-A04	MD-160-P	AO**0403	32	294	328	60	29.36			
ICN3000-10D-D16-A04	MD-160-P	AO**0403	32	300	335	60	30			
ICN3018-10D-D18-A04	MD-180-P	AO**0403	32	302	337	60	30.18			
ICN3096-10D-D18-A04	MD-180-P	AO**0403	32	310	345	60	30.96			
ICN3100-10D-D18-A04	MD-180-P	AO**0403	32	311	346	60	31			
ICN3175-10D-D15-W08	MD-150-P	WO**0803	32	318	355	60	31.75			
ICN3200-10D-D15-W08	MD-150-P	WO**0803	32	320	357	60	32			
ICN3300-10D-D16-W08	MD-160-P	WO**0803	32	330	367	60	33			
ICN3320-10D-D16-W08	MD-160-P	WO**0803	32	332	369	60	33.2			
ICN3335-10D-D16-W08	MD-160-P	WO**0803	32	334	371	60	33.35			
ICN3400-10D-D18-W08	MD-180-P	WO**0803	32	340	377	60	34			
ICN3493-10D-D18-W08	MD-180-P	WO**0803	32	350	387	60	34.93			
ICN3500-10D-D18-W08	MD-180-P	WO**0803	32	350	388	60	35			
ICN3600-10D-D18-W08	MD-180-P	WO**0803	32	360	398	60	36	K14-16.9	ICNM-040100	T15
ICN3653-10D-D19-W08	MD-190-P	WO**0803	32	366	404	60	36.53			
ICN3700-10D-D16-W10	MD-160-P	WO**1003	32	370	408	60	37			
ICN3750-10D-D16-W10	MD-160-P	WO**1003	32	375	413	60	37.5			
ICN3800-10D-D16-W10	MD-160-P	WO**1003	32	380	420	60	38			
ICN3810-10D-D16-W10	MD-160-P	WO**1003	32	381	421	60	38.1			

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AOMT... page 109

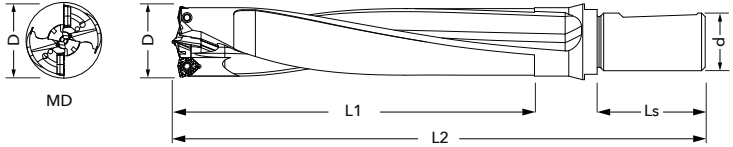
WOMT...W... page 109

MD.....* page 110



ICN...10D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 10XD



Unit: mm

Specification	Center Drill	Side Insert	Dimensions					Accessories			
			d	L1	L2	Ls	D				
ICN3900-10D-D18-W10	MD-180-P	WO**1003	32	390	430	60	39	K17-19.9	ICNM-040100	T15	
ICN3920-10D-D18-W10	MD-180-P	WO**1003	32	392	432	60	39.2				
ICN3970-10D-D18-W10	MD-180-P	WO**1003	32	397	437	60	39.7				
ICN4000-10D-D18-W10	MD-180-P	WO**1003	32	400	443	60	40				
ICN4100-10D-D19-W10	MD-190-P	WO**1003	32	410	453	60	41				
ICN4128-10D-D19-W10	MD-190-P	WO**1003	32	413	456	60	41.28				
ICN4200-10D-D19-W10	MD-190-P	WO**1204	50	420	464	80	42				
ICN4300-10D-D16-W12	MD-160-P	WO**1204	50	430	474	80	43				K14-16.9
ICN4400-10D-D18-W12	MD-180-P	WO**1204	50	440	484	80	44				K17-19.9
ICN4445-10D-D18-W12	MD-180-P	WO**1204	50	445	489	80	44.45				
ICN4500-10D-D18-W12	MD-180-P	WO**1204	50	450	494	80	45				
ICN4600-10D-D19-W12	MD-190-P	WO**1204	50	460	504	80	46				
ICN4700-10D-D20-W12	MD-200-P	WO**1204	50	470	514	80	47				
ICN4763-10D-D21-W12	MD-210-P	WO**1204	50	477	521	80	47.63				
ICN4800-10D-D21-W12	MD-210-P	WO**1204	50	480	525	80	48				
ICN4900-10D-D22-W12	MD-220-P	WO**1204	50	490	535	80	49				
ICN5000-10D-D23-W12	MD-230-P	WO**1204	50	500	545	80	50	K20-26.9			
ICN5080-10D-D24-W12	MD-240-P	WO**1204	50	508	553	80	50.8				
ICN5100-10D-D24-W12	MD-240-P	WO**1204	50	510	555	80	51				
ICN5200-10D-D25-W12	MD-250-P	WO**1204	50	520	565	80	52				
ICN5300-10D-D26-W12	MD-260-P	WO**1204	50	530	575	80	53				
ICN5398-10D-D27-W12	MD-270-P	WO**1204	50	540	585	80	53.98	K27-32			
ICN5400-10D-D27-W12	MD-270-P	WO**1204	50	541	586	80	54				
ICN5500-10D-D28-W12	MD-280-P	WO**1204	50	550	595	80	55				

Insert pages :

WOMT...W... page 109

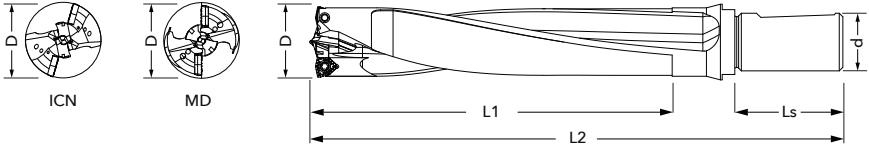
MD.....* page 110



ICN...10D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 10XD



Unit: mm

Specification	Center Drill	Side Insert	Dimensions					Accessories			
			d	L1	L2	Ls	D				
ICN5600-10D-D20-W15	MD-200-P	WO**1503	50	560	605	80	56	K17-19.9	ICNM-050100	T20	
ICN5700-10D-D21-W15	MD-210-P	WO**1503	50	570	615	80	57				
ICN5800-10D-D22-W15	MD-220-P	WO**1503	50	580	625	80	58				
ICN5900-10D-D23-W15	MD-230-P	WO**1503	50	590	635	80	59				
ICN6000-10D-D24-W15	MD-240-P	WO**1503	50	600	645	80	60				
ICN6100-10D-D25-W15	MD-250-P	WO**1503	50	610	655	80	61				
ICN6200-10D-D26-W15	MD-260-P	WO**1503	50	620	665	80	62	K20-26			
ICN6300-10D-D27-W15	MD-270-P	WO**1503	50	630	675	80	63				
ICN6400-10D-D28-W15	MD-280-P	WO**1503	50	640	685	80	64				
ICN6500-10D-ICN29-W15	ICN-290-P	WO**1503	50	650	695	80	65				K27-32
ICN6600-10D-ICN30-W15	ICN-300-P	WO**1503	50	660	705	80	66				
ICN6700-10D-ICN31-W15	ICN-310-P	WO**1503	50	670	715	80	67				
ICN6800-10D-ICN32-W15	ICN-320-P	WO**1503	50	680	725	80	68				
ICN6900-10D-ICN33-W15	ICN-330-P	WO**1503	50	690	735	80	69	K33-38			
ICN7000-10D-ICN34-W15	ICN-340-P	WO**1503	50	700	745	80	70				
ICN7100-10D-ICN35-W15	ICN-350-P	WO**1503	50	710	789	80	71				
ICN7200-10D-ICN36-W15	ICN-360-P	WO**1503	50	720	800	80	72				
ICN7300-10D-ICN37-W15	ICN-370-P	WO**1503	50	730	811	80	73				
ICN7400-10D-ICN38-W15	ICN-380-P	WO**1503	50	740	822	80	74				
ICN7500-10D-ICN39-W15	ICN-390-P	WO**1503	50	750	833	80	75	K39-45			
ICN7600-10D-ICN40-W15	ICN-400-P	WO**1503	50	760	844	80	76				
ICN7700-10D-ICN41-W15	ICN-410-P	WO**1503	50	770	855	80	77				
ICN7800-10D-ICN42-W15	ICN-420-P	WO**1503	50	780	866	80	78				
ICN7900-10D-ICN43-W15	ICN-430-P	WO**1503	50	632	697	80	79				
ICN8000-10D-ICN44-W15	ICN-440-P	WO**1503	50	640	706	80	80				

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WOMT...W... page 109

MD.....* page 110

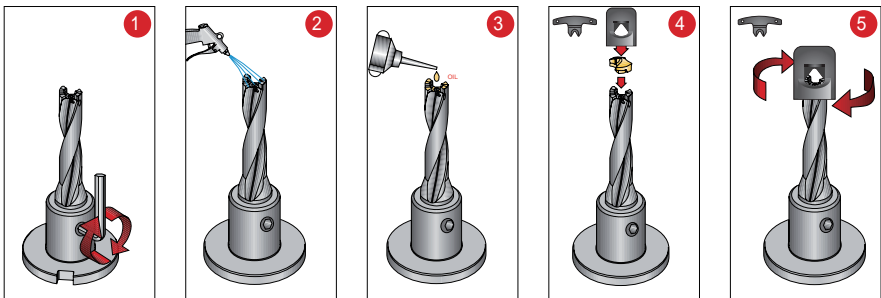


General Recommendations

- ICN drills can be used in any type of adaptation. However, concentric adaptation such as spring collets and hydraulic chucks are advantageous for better runout. When machining high temperature alloys or applying very high machining loads, it is advisable to use strong gripping adapters such as endmill holders, power or hydraulic chucks.
- Dry drilling should not be performed under any circumstances.
- Semi-synthetic or emulsion lubricants are recommended
- It is essential to use internal coolant in all ICN applications. In the event of low coolant pressure or when used in a stationary application, adding an external coolant can improve tool life.
- When only external coolant can be applied, it is recommended to drill into maximum depth of 2xD hole depth to diameter ratio.
- When using M.Q.L. coolant, there is no need for special accessories. For smooth M.Q.L. coolant flow there is a spherical cavity on the rear side of the drill shank.



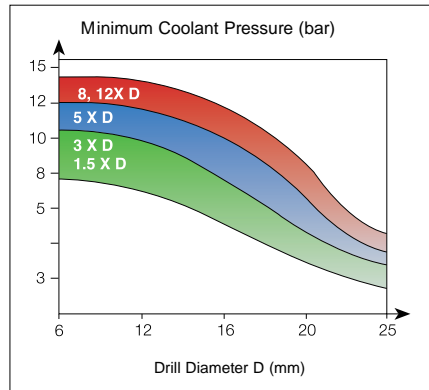
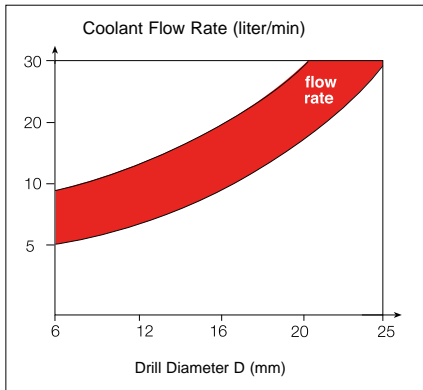
How to lock ICN drilling head





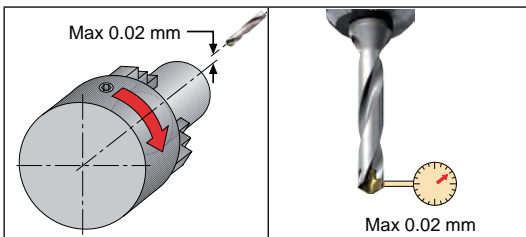
User Guide - Cooling Instructions

- When drilling stainless steel or high temperature alloys using the ICN drilling head, it is highly recommended to apply high pressure oil or 7-10% mineral or vegetable based oil emulsion.
- Following is recommended coolant flow rate and pressure.



- For optimal performance, it is recommended to adjust runout of outer points or chisel with a maximum of 0.02 mm. Large runout will influence drill performance tool life and hole quality.
- No setup time is needed after indexing the ICN drill head.
- ICN drills can be used either on milling centers or lathe machines.
- When using ICN drill in stationary (lathe) applications, we recommend using specific device or eccentric sleeve to reduce misalignment. Misalignment will cause poor performance of the ICN drill or even tool breakage.

Maximum Runout, Misalignment

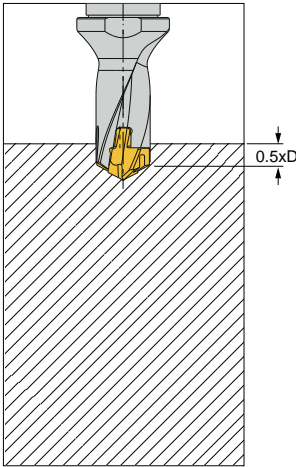




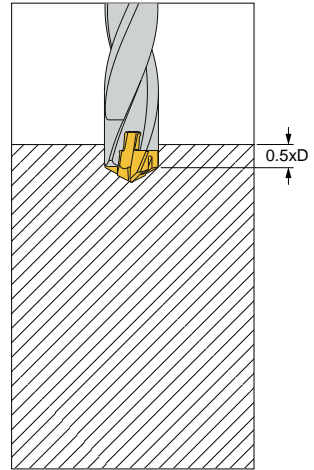
User Guide - How to drill deep holes

- Prior to using 8xD or 12xD drills, it is recommended to drill a 1.5xD pre-hole using a short or centering drill. Enter the pre-hole at slow speed and feed until 2-5 mm from its bottom. Start the cooling system and increase rotation to recommended drilling speed. Hold for 2-3 seconds, then, continue at the recommended drilling feed.

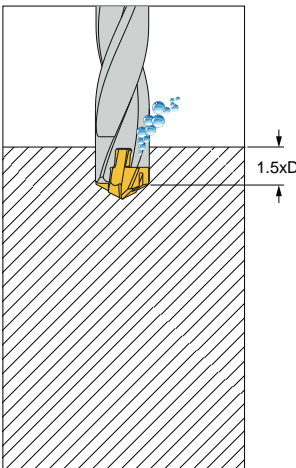
- 1 Pre-hole 0.5xD deep for centering



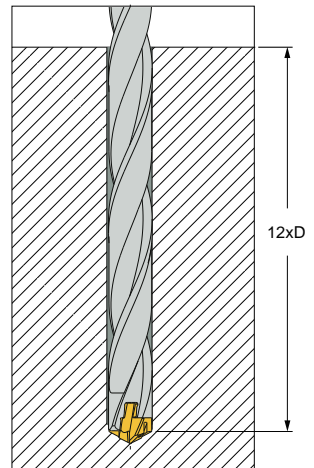
- 2 Slow rotation and feed during entrance to the pre-hole



- 3 Maintain for 2-3 seconds and activate the cooling system



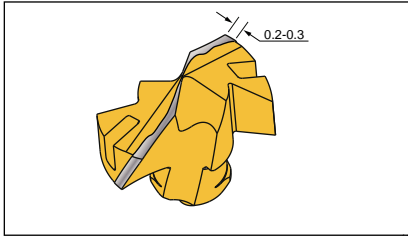
- 4 Continue drilling at recommended cutting conditions



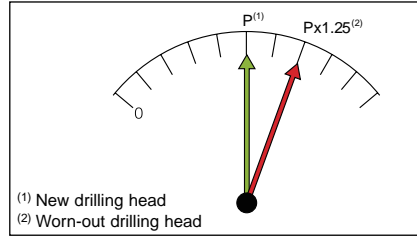


Indication of Drill Head Wear

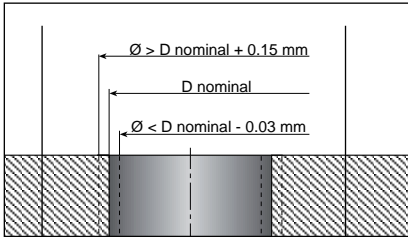
Wear Limit



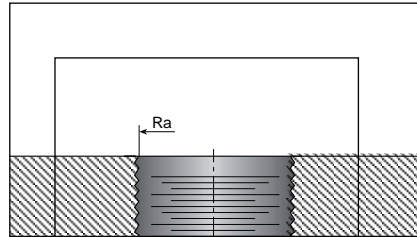
Power Restriction



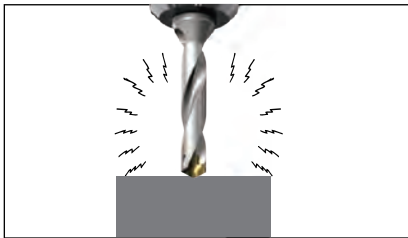
Diameter Change



Surface Finish Declines



Vibration Noise Drastically Increases



Drilling Limitations





Material Groups

Recommended Machining Conditions

ISO	Material	Condition	(N/mm ²)	(HB)	Vc(m/min)	Feed rate(mm/rev)							
						D=8-9.9	D=10-11.9	D=12-13.9	D=14-15.9	D=16-19.9	D=20-25.9	D=26-32.9	
P	Non-alloy steel and cast steel	<0.25% C	Annealed	420	125	80-110-140							
		>=0.25% C	Annealed	650	190	80-105-130	0.12	0.15	0.18	0.20	0.25	0.25	0.30
	steel, free cutting steel	<0.55% C	Quenched and tempered	850	250	80-100-120	0.17	0.21	0.24	0.27	0.35	0.35	0.40
		>=0.55% C	Annealed	750	220	70-90-110	0.22	0.28	0.30	0.35	0.45	0.45	0.50
	Low alloy and cast steel (less than 5% of alloying elements)	Annealed		600	200	80-100-120	0.12	0.14	0.16	0.18	0.23	0.25	0.30
				930	275	70-90-110	0.18	0.21	0.24	0.26	0.31	0.35	0.40
		Quenched and tempered		1000	300	50-70-90	0.25	0.28	0.32	0.35	0.40	0.45	0.50
				1200	350	40-55-70							
	High alloyed steel, cast steel and tool steel	Annealed		680	200	50-70-90	0.12	0.12	0.15	0.18	0.20	0.22	0.25
		Quenched and tempered		1100	325	40-60-80	0.16	0.17	0.20	0.23	0.25	0.27	0.30
Stainless steel and cast steel	Ferritic/martensitic		680	200	40-55-70	0.10	0.12	0.14	0.16	0.16	0.18	0.20	
	Martensitic		820	240	40-55-70	0.12	0.15	0.17	0.20	0.21	0.24	0.27	
M	Stainless steel and cast steel	Austenitic, duplex		600	180	30-50-70	0.10	0.12	0.14	0.16	0.16	0.18	0.20
							0.12	0.15	0.17	0.20	0.21	0.24	0.27
							0.15	0.18	0.20	0.24	0.26	0.30	0.35
K	Gray cast iron (GG)	Ferritic / pearlitic		180	90-125-160								
		Pearlitic / martensitic		260	80-110-140								
	Nodular cast iron (GGG)	Ferritic		160	90-135-180	0.15	0.20	0.25	0.30	0.35	0.35	0.40	
		Pearlitic		250	80-110-140	0.22	0.27	0.32	0.37	0.45	0.47	0.50	
	Malleable cast iron	Ferritic		130	90-125-160	0.30	0.35	0.40	0.45	0.55	0.60	0.60	
		Pearlitic		230	80-110-140								
N	Aluminum-wrought alloys	Not hardenable		60	90-155-220								
		Hardenable		100	90-155-220								
	Aluminum-cast alloys	<=12% Si	Not hardenable		75	90-155-220	0.20	0.25	0.30	0.35	0.40	0.35	0.50
			Hardenable		90	90-155-220	0.27	0.32	0.37	0.42	0.50	0.47	0.67
		>12% Si	High temperature		130	80-120-160	0.35	0.40	0.45	0.50	0.60	0.60	0.75
	Copper alloys	>1% Pb	Free cutting		110	90-155-220							
			Brass		90	90-155-220							
	Non metallic	Duroplastics, fiber plastics											
			Hard rubber										



Material Groups

Recommended Machining Conditions

ISO	Material	Condition	(N/mm ²)	(HB) hardness	Vc(m/min)	Feed rate(mm/rev)						
						D=8-9.9	D=10-11.9	D=12-13.9	D=14-15.9	D=16-19.9	D=20-25.9	D=26-32.9
S	High temperature alloys Fe based	Annealed		200	30-45-60							
		Hardened		280	20-35-50	0.06	0.08	0.10	0.12	0.12	0.14	0.16
		Annealed		250	20-35-50	0.08	0.10	0.12	0.15	0.16	0.18	0.20
		Hardened		350	20-35-50	0.11	0.13	0.15	0.18	0.20	0.22	0.25
	Titanium alloys Ni or Co based	Cast		320	20-35-50							
		Pure				0.06	0.08	0.16	0.12	0.14	0.25	0.18
	Alpha+beta alloys, hardened				20-35-50	0.09	0.11	0.24	0.16	0.18	0.35	0.22
						0.12	0.15	0.32	0.20	0.22	0.45	0.27
N	Hardened steel	Hardened			20-35-50	0.06	0.08	0.14	0.12	0.14	0.16	0.18
		Hardened				0.09	0.11	0.17	0.16	0.18	0.20	0.22
		Hardened				0.12	0.15	0.20	0.20	0.22	0.25	0.27

Recommended Machining Conditions for ICN Large Dia. Drills

ISO	Material	Condition	(N/mm ²)	(HB) hardness	Vc(min-max)	Feed vs. Drill Diameter F [mm/rev]				
						26 < ØD < 28	29 < ØD < 32	33 < ØD < 35	36 < ØD < 43	44 < ØD < 50
P	Non-alloy steel and cast steel, free cutting steel	<0.25% C Annealed	420	125	120-200					
		>=0.25% C Annealed	650	190						
	steel, free cutting steel	<0.55% C Quenched and tempered	850	250	130-190	0.25 -	0.25 -	0.25 -	0.25 -	0.28 -
		>=0.55% C Annealed	750	220		0.35	0.35	0.40	0.40	0.45
		Quenched and tempered	1000	300						
	Low alloy and cast steel (less than 5% of alloying elements)	Annealed	600	200	120-180					
		Quenched and tempered	930	275		0.25 -	0.25 -	0.25 -	0.25 -	0.26 -
			1000	300		0.33	0.33	0.38	0.38	0.43
		1200	350							
	High alloyed steel, cast steel and tool steel	Annealed	680	200	100-160	0.25 -	0.25 -	0.25 -	0.25 -	0.26 -
Quenched and tempered		1100	325	0.33		0.33	0.36	0.36	0.41	
Stainless steel and cast steel	Ferritic/martensitic	680	200	90-140	0.12 -	0.12 -	0.16 -	0.18 -	0.18 -	
	Martensitic	820	240		0.24	0.24	0.25	0.25	0.30	

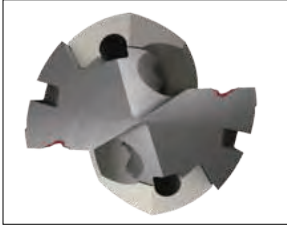


Recommended Machining Conditions for ICN Large Dia. Drills

ISO	Material	Condition	(N/mm ²)	(HRC) hardness	Vc(min-max)	Feed vs. Drill Diameter F [mm/rev]					
						26 < ØD < 28	29 < ØD < 32	33 < ØD < 35	36 < ØD < 43	44 < ØD < 50	
M	Stainless steel and cast steel	Austenitic,	600	180	90-140	0.12	0.12	0.16	0.18	0.18	
		duplex		180		0.24	0.24	0.25	0.25	0.30	
K	Gray cast iron (GG)	Ferritic/pearlitic		180	150-250	0.25	0.25	0.30	0.30	0.35	
		Pearlitic/martensitic		260							
	Nodular cast iron (GGG)	Ferritic		160							
		Pearlitic		250							
	Malleable cast iron	Ferritic		130							
		Pearlitic		230							
N	Aluminum-wrought alloys	Not hardenable		60	160-260	0.30	0.30	0.35	0.35	0.40	
		Hardenable		100							
	Aluminum-cast alloys	<=12% Si		75							
		>12% Si		90							
	Copper alloys	>1% Pb		130							
		Free cutting		110							
		Brass		90							
	Non metallic	Electrolytic copper		100							
Duroplastics, fiber plastics											
S	High temperature alloys	Fe based		200							
			Hardenable								280
		Ni or Co based	Annealed								250
			Hardenable								350
			Cast								320
	Titanium alloys	Pure		400							
Alpha+beta alloys, hardened			1050								
N	Hardened steel	Hardenable		55 HRC	20-50	0.10	0.12	0.14	0.14	0.16	
		Hardenable		60 HRC							
	Cast iron	Cast		400							
		Hardenable		55 HRC							

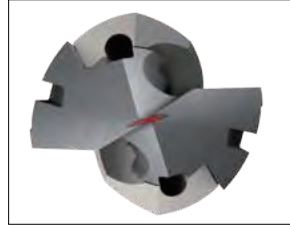


Troubleshooting



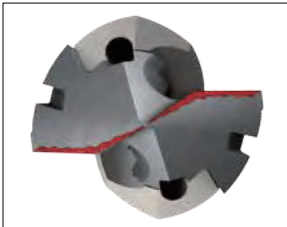
• Cutting Edge Chipping

1. Check the stability of the machine spindle, tool and workpiece clamping rigidity.
2. Reduce feed rate, increase speed.
3. If the drill vibrates, reduce cutting speed and increase feed rate.
4. When drilling rough, hard or sloped surface (up to 7°), reduce the feed rate by 30%-50% during entrance and exit.
5. Check cooling lubricant. Increase coolant pressure. In case of external coolant supply, improve jet direction and add cooling jets.



• Chisel Area Chipping

1. Reduce feed rate.
2. Increase coolant pressure.
3. Check the adaptation. Use hydraulic clamping chuck, maxin power chuck or side lock systems.
4. Increase workpiece chucking force.



• Excessive Flank Wear

1. Check that the correct geometry is used.
2. Reduce cutting speed.
3. Increase internal coolant pressure.



• Excessive Flute Land Wear

1. Check that the correct geometry is used.
2. Check the runout and make sure it is within 0.02 mm T.I.R. (radial and axial).
3. Reduce cutting speed.
4. When drilling rough, hard or sloped surface (up to 7°), reduce the feed rate by 30%-50% during entrance and exit.
5. Increase coolant pressure.
6. Check the chisel point runout and make sure it is within 0.02 mm T.I.R.
7. Increase workpiece chucking force stability and rigidity.
8. If there is low pocket gripping force - replace drill body

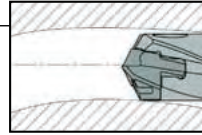


Troubleshooting



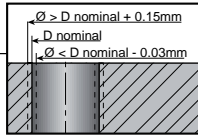
• Built-Up Edge

1. Increase cutting speed/feed.
2. Increase coolant pressure.



• Hole Not Straight:

1. Drill a pre-hole for centering (check recommendations for pre-hole operation).
2. Increase coolant pressure; improve jet direction in case of external coolant supply.
3. Increase the feed.

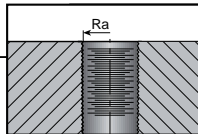


• Deviation of Dia. Tolerance

1. Check the runout and make sure it is within 0.02 mm T.I.R. (radial and axial cutting points).
2. Reduce feed rate.
3. Check the chisel point runout and make sure that it is within 0.02 mm T.I.R.
4. Wrong cutting edge. Replace head.
5. Increase workpiece chucking force.
6. Check the adaptation. Use hydraulic clamping chuck, maxin power chuck or side clamping systems.
7. Increase internal coolant pressure.

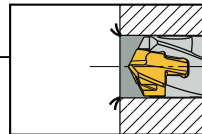
• Inaccurate Hole Position

1. Check the run-out and make sure it is within 0.02 mm T.I.R. (radial and axial).
2. Check the stability of the machine spindle, tool and workpiece clamping rigidity.
3. When drilling rough, hard or sloped surface (up to 7°), reduce the feed rate by 30%-50% during entrance.
4. Drill a pre-hole with a 140° point angle for centering.
5. Check the chisel point runout and make sure it is within 0.02 mm T.I.R.



• Surface Finish Too Rough

1. Check the runout and make sure it is within 0.02 mm T.I.R. (radial and axial).
2. Adjust the feed for improved chip formation.
3. In case of chip jamming - increase the coolant flow and/or reduce the cutting speed.
4. Increase the coolant pressure.
5. Check the chisel point runout and make sure it is within 0.02 mm T.I.R.
6. Use pecking cycle.
7. Use double margin geometry.

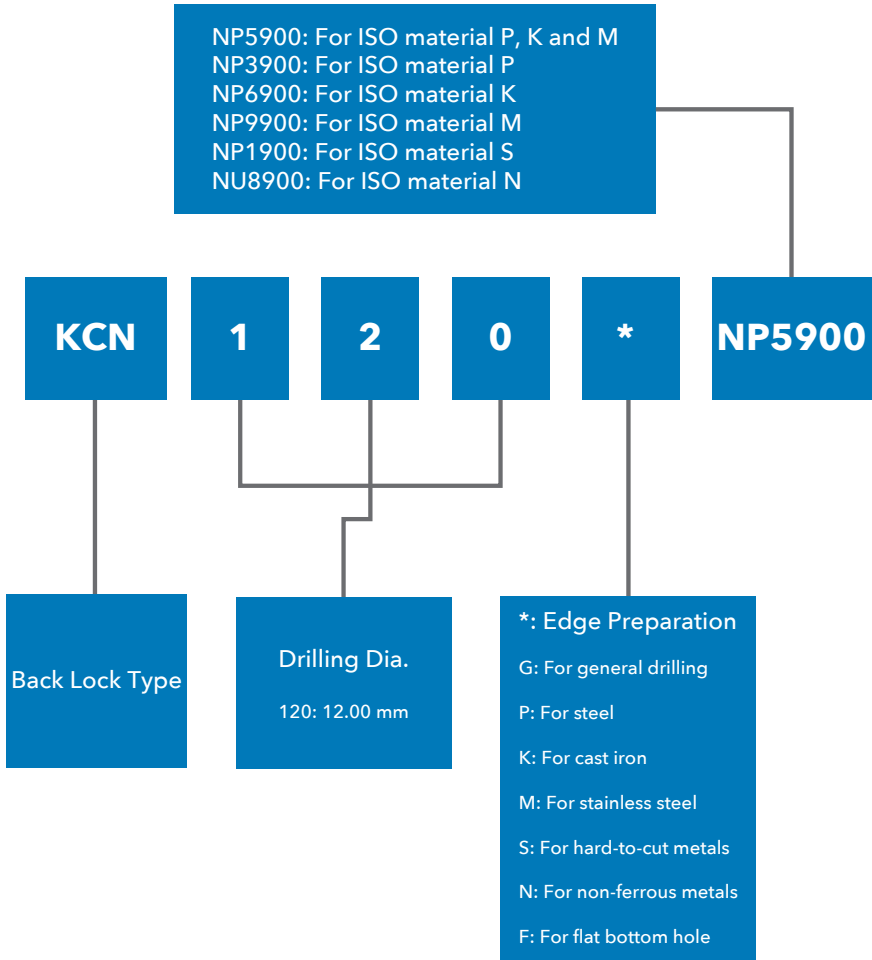


• Burrs on Exit

1. Reduce the feed rate by 30%-50% during exit.
2. Replace the worn head.
3. Check the adaptation. Use hydraulic clamping chuck, maxin power chuck or side clamping systems.



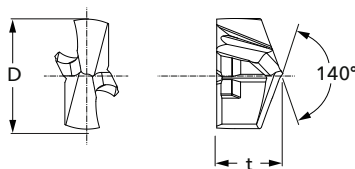
KCN Drill Head Coding System





KCN...* Drilling Head

For KCN Drills



Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
KCN-120.*	12.0	9.8	KCN120129 -16..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
KCN-121.*	12.1	9.8		
KCN-122.*	12.2	9.8		
KCN-123.*	12.3	9.8		
KCN-124.*	12.4	9.8		
KCN-125.*	12.5	9.8		
KCN-126.*	12.6	9.8		
KCN-127.*	12.7	9.8		
KCN-128.*	12.8	9.8		
KCN-129.*	12.9	9.8		
KCN-130.*	13.0	9.8	KCN130139 -16..	
KCN-131.*	13.1	9.8		
KCN-132.*	13.2	9.8		
KCN-133.*	13.3	9.8		
KCN-134.*	13.4	9.8		
KCN-135.*	13.5	9.8		
KCN-136.*	13.6	9.8		
KCN-137.*	13.7	9.8		
KCN-138.*	13.8	9.8		
KCN-139.*	13.9	9.8	KCN140149 -16..	
KCN-140.*	14.0	10.3		
KCN-141.*	14.1	10.3		
KCN-142.*	14.2	10.3		
KCN-143.*	14.3	10.3		
KCN-144.*	14.4	10.3		
KCN-145.*	14.5	10.3		
KCN-146.*	14.6	10.3		
KCN-147.*	14.7	10.3		
KCN-148.*	14.8	10.3		
KCN-149.*	14.9	10.3	KCN150159 -20..	
KCN-150.*	15.0	10.3		
KCN-151.*	15.1	10.3		
KCN-152.*	15.2	10.3		
KCN-153.*	15.3	10.3		
KCN-154.*	15.4	10.3		
KCN-155.*	15.5	10.3		
KCN-156.*	15.6	10.3		
KCN-157.*	15.7	10.3		
KCN-158.*	15.8	10.3		
KCN-159.*	15.9	10.3		

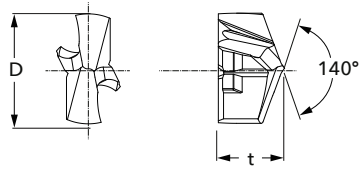
Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
KCN-160.*	16.0	11.3	KCN160169 -20..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
KCN-161.*	16.1	11.3		
KCN-162.*	16.2	11.3		
KCN-163.*	16.3	11.3		
KCN-164.*	16.4	11.3		
KCN-165.*	16.5	11.3		
KCN-166.*	16.6	11.3		
KCN-167.*	16.7	11.3		
KCN-168.*	16.8	11.3		
KCN-169.*	16.9	11.3	KCN170179 -20..	
KCN-170.*	17.0	11.3		
KCN-171.*	17.1	11.3		
KCN-172.*	17.2	11.3		
KCN-173.*	17.3	11.3		
KCN-174.*	17.4	11.3		
KCN-175.*	17.5	11.3		
KCN-176.*	17.6	11.3		
KCN-177.*	17.7	11.3	KCN180189 -25..	
KCN-178.*	17.8	11.3		
KCN-179.*	17.9	11.3		
KCN-180.*	18.0	12.5		
KCN-181.*	18.1	12.5		
KCN-182.*	18.2	12.5		
KCN-183.*	18.3	12.5		
KCN-184.*	18.4	12.5		
KCN-185.*	18.5	12.5	KCN190199 -25..	
KCN-186.*	18.6	12.5		
KCN-187.*	18.7	12.5		
KCN-188.*	18.8	12.5		
KCN-189.*	18.9	12.5		
KCN-190.*	19.0	12.5		
KCN-191.*	19.1	12.5		
KCN-192.*	19.2	12.5		
KCN-193.*	19.3	12.5		
KCN-194.*	19.4	12.5		
KCN-195.*	19.5	12.5		
KCN-196.*	19.6	12.5		
KCN-197.*	19.7	12.5		
KCN-198.*	19.8	12.5		
KCN-199.*	19.9	12.5		



KCN...* Drilling Head

For KCN Drills



Unit: mm

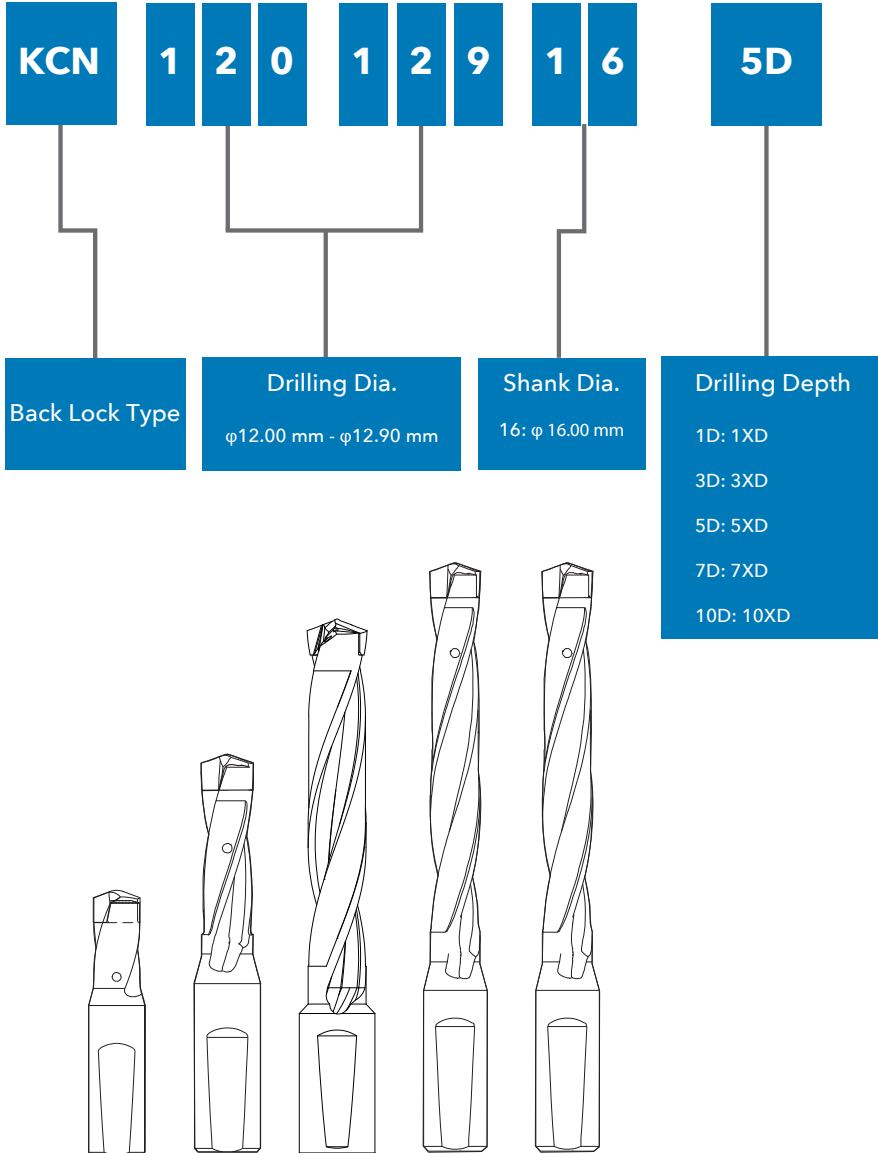
Specification	Dimensions		Drilling Body	Grade
	D	t		
KCN-200.*	20.0	13.3	KCN200209 -25..	
KCN-201.*	20.1	13.3		
KCN-202.*	20.2	13.3		
KCN-203.*	20.3	13.3		
KCN-204.*	20.4	13.3		
KCN-205.*	20.5	13.3		
KCN-206.*	20.6	13.3		
KCN-207.*	20.7	13.3		
KCN-208.*	20.8	13.3		
KCN-209.*	20.9	13.3		
KCN-210.*	21.0	13.3	KCN210219 -25..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
KCN-211.*	21.1	13.3		
KCN-212.*	21.2	13.3		
KCN-213.*	21.3	13.3		
KCN-214.*	21.4	13.3		
KCN-215.*	21.5	13.3		
KCN-216.*	21.6	13.3		
KCN-217.*	21.7	13.3		
KCN-218.*	21.8	13.3		
KCN-219.*	21.9	13.3		
KCN-220.*	22.0	14.3	KCN220229 -25..	
KCN-221.*	22.1	14.3		
KCN-222.*	22.2	14.3		
KCN-223.*	22.3	14.3		
KCN-224.*	22.4	14.3		
KCN-225.*	22.5	14.3		
KCN-226.*	22.6	14.3		
KCN-227.*	22.7	14.3		
KCN-228.*	22.8	14.3		
KCN-229.*	22.9	14.3		

Unit: mm

Specification	Dimensions		Drilling Body	Grade
	D	t		
KCN-230.*	23.0	14.3	KCN230239 -32..	
KCN-231.*	23.1	14.3		
KCN-232.*	23.2	14.3		
KCN-233.*	23.3	14.3		
KCN-234.*	23.4	14.3		
KCN-235.*	23.5	14.3		
KCN-236.*	23.6	14.3		
KCN-237.*	23.7	14.3		
KCN-238.*	23.8	14.3		
KCN-239.*	23.9	14.3		
KCN-240.*	24.0	15.3	KCN240249 -32..	NP5900 NP3900 NP6900 NP9900 NP1900 NU8900
KCN-241.*	24.1	15.3		
KCN-242.*	24.2	15.3		
KCN-243.*	24.3	15.3		
KCN-244.*	24.4	15.3		
KCN-245.*	24.5	15.3		
KCN-246.*	24.6	15.3		
KCN-247.*	24.7	15.3		
KCN-248.*	24.8	15.3		
KCN-249.*	24.9	15.3		
KCN-250.*	25.0	15.3	KCN250260 -32..	
KCN-251.*	25.1	15.3		
KCN-252.*	25.2	15.3		
KCN-253.*	25.3	15.3		
KCN-254.*	25.4	15.3		
KCN-255.*	25.5	15.3		
KCN-256.*	25.6	15.3		
KCN-257.*	25.7	15.3		
KCN-258.*	25.8	15.3		
KCN-259.*	25.9	15.3		
KCN-260.*	26.0	15.3		



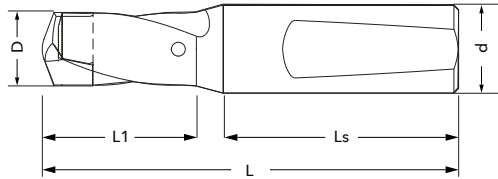
KCN Drill Body Coding System SumoHead





KCN...1D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 1XD



Unit: mm

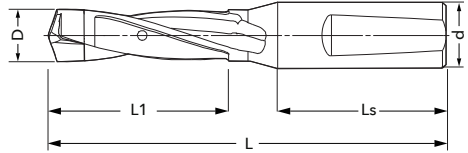
Specification	Drilling Dia.	Dimensions					Lock Screw	Wrench
		d	L	L1	D	Ls		
KCN120129-16-1D	12.0-12.9	16	78	14	11.5	48	M2.5-M2.5x13	T5x156
KCN130139-16-1D	13.0-13.9	16	81	15	12.5	48		
KCN140149-20-1D	14.0-14.9	20	85	16	13.5	50	M3.0-M2.5x14	T5x156
KCN150159-20-1D	15.0-15.9	20	85	16	14.5	50		
KCN160169-20-1D	16.0-16.9	20	88	18	15.5	50	M3.5-M3.0x16	1.5mmx185
KCN170179-20-1D	17.0-17.9	20	88	18	16.5	50		
KCN180189-25-1D	18.0-18.9	25	99	20	17.5	56		
KCN190199-25-1D	19.0-19.9	25	99	20	18.5	56		
KCN200209-25-1D	20.0-20.9	25	102	22	19.5	56		
KCN210219-25-1D	21.0-21.9	25	102	22	20.5	56		
KCN220229-25-1D	22.0-22.9	25	107	24	21.5	56	M4.0-M3.0x19	2.0mmx210
KCN230239-25-1D	23.0-23.9	25	107	24	22.5	56		
KCN240249-32-1D	24.0-24.9	32	115	26	23.5	60	M5.0-M4.0x23	2.5mmx240
KCN250260-32-1D	25.0-26.0	32	115	26	24.5	60		

Insert pages :

KCN...* page 64

KCN...3D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 3XD



Unit: mm

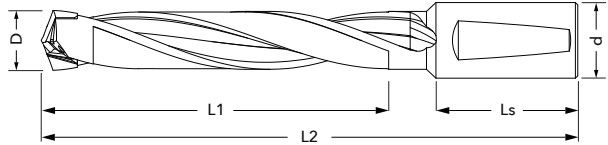
Specification	Drilling Dia.	Dimensions					Lock Screw	Wrench
		d	L	L1	D	Ls		
KCN120129-16-3D	12.0-12.9	16	111	42	11.5	48	M2.5-M2.5x13	T5x156
KCN130139-16-3D	13.0-13.9	16	111	42	12.5	48		
KCN140149-20-3D	14.0-14.9	20	122	48	13.5	50	M3.0-M2.5x14	T5x156
KCN150159-20-3D	15.0-15.9	20	122	48	14.5	50		
KCN160169-20-3D	16.0-16.9	20	130	54	15.5	50	M3.5-M3.0x16	1.5mmx185
KCN170179-20-3D	17.0-17.9	20	130	54	16.5	50		
KCN180189-25-3D	18.0-18.9	25	144	60	17.5	56		
KCN190199-25-3D	19.0-19.9	25	144	60	18.5	56		
KCN200209-25-3D	20.0-20.9	25	153	66	19.5	56		
KCN210219-25-3D	21.0-21.9	25	153	66	20.5	56	M4.0-M3.0x19	2.0mmx210
KCN220229-25-3D	22.0-22.9	25	161	72	21.5	56		
KCN230239-25-3D	23.0-23.9	25	161	72	22.5	56	M5.0-M4.0x23	2.5mmx240
KCN240249-32-3D	24.0-24.9	32	174	78	23.5	60		
KCN250260-32-3D	25.0-26.0	32	174	78	24.5	60		

Insert pages :
KCN...* page 64



KCN...5D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 5XD



Unit: mm

Specification	Drilling Dia.	Dimensions					Lock Screw	Wrench
		d	L	L1	D	Ls		
KCN120129-16-5D	12.0-12.9	16	139	70	11.5	48	M2.5-M2.5x13	T5x156
KCN130139-16-5D	13.0-13.9	16	139	70	12.5	48		
KCN140149-20-5D	14.0-14.9	20	154	80	13.5	50	M3.0-M2.5x14	T6x188
KCN150159-20-5D	15.0-15.9	20	154	80	14.5	50		
KCN160169-20-5D	16.0-16.9	20	166	90	15.5	50	M3.5-M3.0x16	1.5mmx185
KCN170179-20-5D	17.0-17.9	20	166	90	16.5	50		
KCN180189-25-5D	18.0-18.9	25	184	100	17.5	56	M3.5-M3.0x16	1.5mmx225
KCN190199-25-5D	19.0-19.9	25	184	100	18.5	56		
KCN200209-25-5D	20.0-20.9	25	197	110	19.5	56		
KCN210219-25-5D	21.0-21.9	25	197	110	20.5	56		
KCN220229-25-5D	22.0-22.9	25	209	120	21.5	56	M4.0-M3.0x19	2.0mmx260
KCN230239-25-5D	23.0-23.9	25	209	120	22.5	56		
KCN240249-32-5D	24.0-24.9	32	226	130	23.5	60	M5.0-M4.0x23	2.5mmx240
KCN250260-32-5D	25.0-26.0	32	226	130	24.5	60		

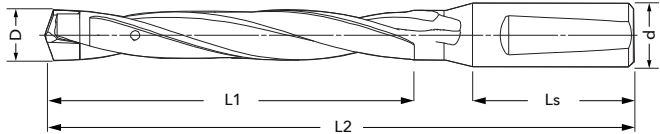
Insert pages :

KCN...* page 64



KCN...7D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 7XD



Unit: mm

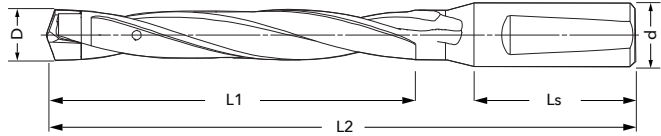
Specification	Drilling Dia.	Dimensions					Lock Screw	Wrench
		d	L	L1	D	Ls		
KCN120129-16-7D	12.0-12.9	16	167	98	11.5	48	M2.5-M2.5x13	T5x188
KCN130139-16-7D	13.0-13.9	16	167	98	12.5	48		
KCN140149-20-7D	14.0-14.9	20	186	112	13.5	50	M3.0-M2.5x14	T6x290
KCN150159-20-7D	15.0-15.9	20	186	112	14.5	50		
KCN160169-20-7D	16.0-16.9	20	202	126	15.5	50	M3.5-M3.0x16	1.5mmx225
KCN170179-20-7D	17.0-17.9	20	202	126	16.5	50		
KCN180189-25-7D	18.0-18.9	25	224	140	17.5	56	M3.5-M3.0x16	1.5mmx297
KCN190199-25-7D	19.0-19.9	25	224	140	18.5	56		
KCN200209-25-7D	20.0-20.9	25	241	154	19.5	56		
KCN210219-25-7D	21.0-21.9	25	241	154	20.5	56		
KCN220229-25-7D	22.0-22.9	25	257	168	21.5	56	M4.0-M3.0x19	2.0mmx343
KCN230239-25-7D	23.0-23.9	25	257	168	22.5	56		
KCN240249-32-7D	24.0-24.9	32	278	182	23.5	60	M5.0-M4.0x23	2.5mmx295
KCN250260-32-7D	25.0-26.0	32	278	182	24.5	60		

Insert pages :
KCN...* page 64



KCN...10D Drilling Body

With Coolant Holes | Weldon Shank
Drilling Depth 10XD



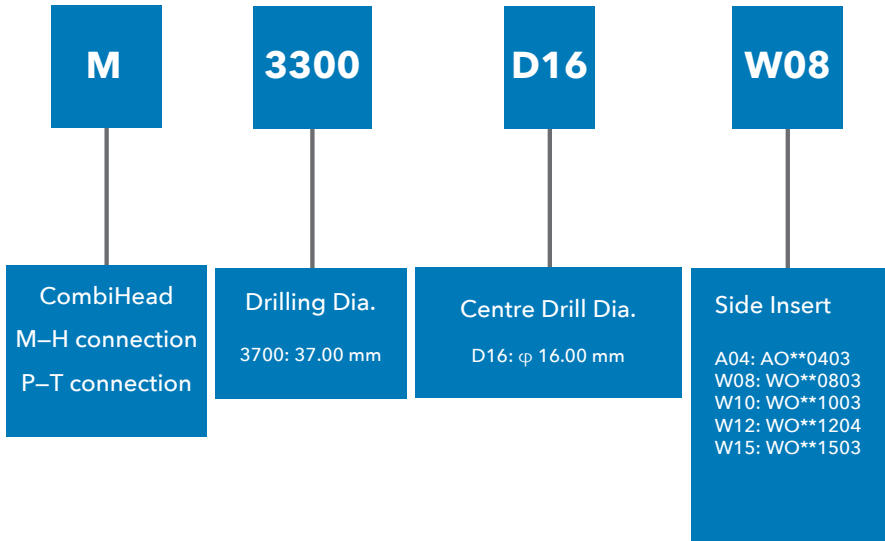
Unit: mm

Specification	Drilling Dia.	Dimensions					Lock Screw	Wrench
		d	L	L1	D	Ls		
KCN120129-16-10D	12.0-12.9	16	195	130	11.5	48	M2.5-M2.5x13	T5x290
KCN130139-16-10D	13.0-13.9	16	205	140	12.5	48		
KCN140149-20-10D	14.0-14.9	20	220	150	13.5	50	M3.0-M2.5x14	T6x290
KCN150159-20-10D	15.0-15.9	20	230	160	14.5	50		
KCN160169-20-10D	16.0-16.9	20	241	170	15.5	50	M3.5-M3.0x16	1.5mmx297
KCN170179-20-10D	17.0-17.9	20	251	180	16.5	50		
KCN180189-25-10D	18.0-18.9	25	269	190	17.5	56		
KCN190199-25-10D	19.0-19.9	25	279	200	18.5	56		
KCN200209-25-10D	20.0-20.9	25	297	210	19.5	56	M3.5-M3.0x16	1.5mmx351
KCN210219-25-10D	21.0-21.9	25	307	220	20.5	56		
KCN220229-25-10D	22.0-22.9	25	319	230	21.5	56	M4.0-M3.0x19	2.0mmx343
KCN230239-25-10D	23.0-23.9	25	329	240	22.5	56		
KCN240249-32-10D	24.0-24.9	32	346	250	23.5	60	M5.0-M4.0x23	2.5mmx393
KCN250260-32-10D	25.0-26.0	32	356	260	24.5	60		

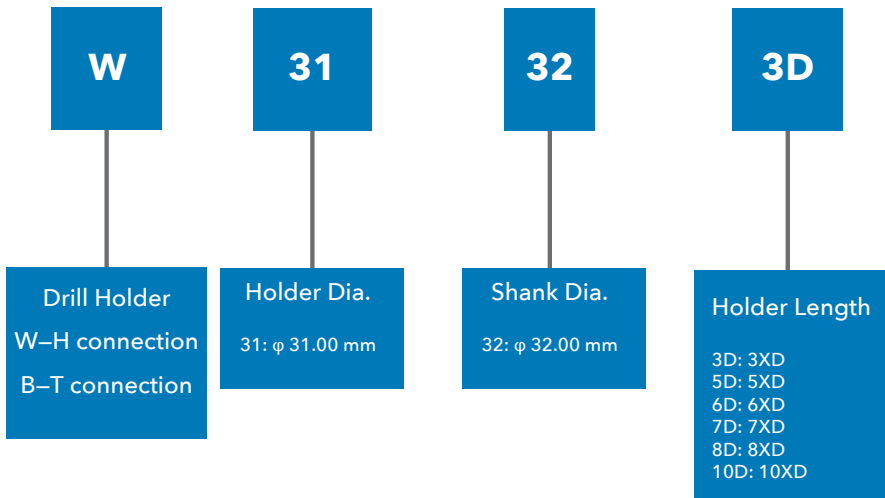
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KCN...* page 64



KCN Drill Body Coding System CombiHead



Holder Coding System

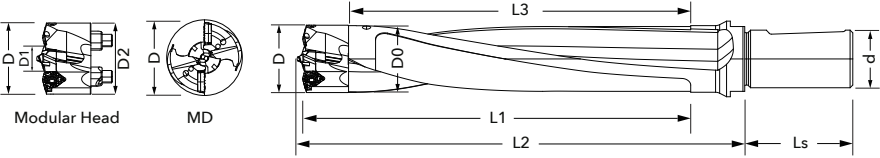




KCNM...3D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M2800-D14-A04	28.00	MD-140-P	AO**0403
M2858-D15-A04	28.58	MD-150-P	AO**0403
M2900-D16-A04	29.00	MD-160-P	AO**0403
M2936-D16-A04	29.36	MD-160-P	AO**0403
M3000-D16-A04	30.00	MD-160-P	AO**0403
M3018-D18-A04	30.18	MD-180-P	AO**0403
M3096-D18-A04	30.96	MD-180-P	AO**0403
M3100-D18-A04	31.00	MD-180-P	AO**0403
M3175-D15-W08	31.75	MD-150-P	WO**0803
M3200-D15-W08	32.00	MD-150-P	WO**0803
M3300-D16-W08	33.00	MD-160-P	WO**0803
M3320-D16-W08	33.20	MD-160-P	WO**0803
M3335-D16-W08	33.35	MD-160-P	WO**0803
M3400-D18-W08	34.00	MD-180-P	WO**0803
M3493-D18-W08	34.93	MD-180-P	WO**0803
M3500-D18-W08	35.00	MD-180-P	WO**0803
M3600-D18-W08	36.00	MD-180-P	WO**0803
M3653-D19-W08	36.53	MD-190-P	WO**0803
M3700-D16-W10	37.00	MD-160-P	WO**1003
M3750-D16-W10	37.50	MD-160-P	WO**1003

Insert pages :

AOMT... page 109

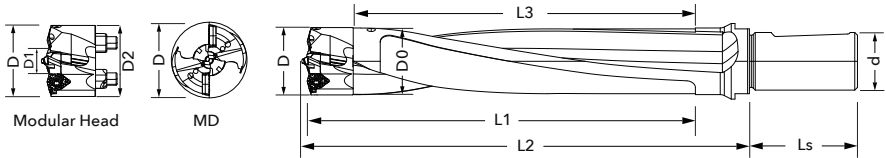
WOMT...W... page 109

MD.....* page 110



KCNM...3D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

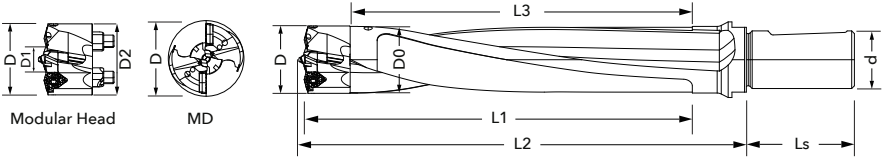
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M2800-D14-A04	W27-32-3D	27.5	27	32	95	134	75	60	K14-16.9	KCNM025080	T9
M2858-D15-A04		27.5	27	32	95	134	75	60			
M2900-D16-A04		27.5	27	32	95	134	75	60			
M2936-D16-A04		27.5	27	32	95	134	75	60			
M3000-D16-A04	W29-32-3D	29.5	29	32	100	138	80	60	K17-19.9	KCNM030080	T10
M3018-D18-A04		29.5	29	32	100	138	80	60			
M3096-D18-A04		29.5	29	32	100	138	80	60			
M3100-D18-A04		29.5	29	32	100	138	80	60			
M3175-D15-W08	W31-32-3D	31.25	30.75	32	112	148	90	60	K14-16.9	KCNM030080	T10
M3200-D15-W08		31.25	30.75	32	112	148	90	60			
M3300-D16-W08		31.25	30.75	32	112	148	90	60			
M3320-D16-W08		31.25	30.75	32	112	148	90	60			
M3335-D16-W08		31.25	30.75	32	112	148	90	60			
M3400-D18-W08		31.25	30.75	32	112	148	90	60			
M3493-D18-W08	31.25	30.75	32	112	148	90	60				
M3500-D18-W08	W34-32-3D	34.5	34	32	122	160	100	60	K17-19.9	KCNM040120	T15
M3600-D18-W08		34.5	34	32	122	160	100	60			
M3653-D19-W08		34.5	34	32	122	160	100	60			
M3700-D16-W10		34.5	34	32	122	160	100	60			
M3750-D16-W10		34.5	34	32	122	160	100	60			



KCNM...3D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M3800-D16-W10	38.00	MD-160-P	WO**1003
M3810-D16-W10	38.10	MD-160-P	WO**1003
M3900-D18-W10	39.00	MD-180-P	WO**1003
M3920-D18-W10	39.20	MD-180-P	WO**1003
M3970-D18-W10	39.70	MD-180-P	WO**1003
M4000-D18-W10	40.00	MD-180-P	WO**1003
M4100-D19-W10	41.00	MD-190-P	WO**1003
M4128-D19-W10	41.28	MD-190-P	WO**1003
M4200-D19-W10	42.00	MD-190-P	WO**1204
M4300-D16-W12	43.00	MD-160-P	WO**1204
M4400-D18-W12	44.00	MD-180-P	WO**1204
M4445-D18-W12	44.45	MD-180-P	WO**1204
M4500-D18-W12	45.00	MD-180-P	WO**1204
M4600-D19-W12	46.00	MD-190-P	WO**1204
M4700-D20-W12	47.00	MD-200-P	WO**1204
M4763-D21-W12	47.63	MD-210-P	WO**1204
M4800-D21-W12	48.00	MD-210-P	WO**1204
M4900-D22-W12	49.00	MD-220-P	WO**1204
M5000-D23-W12	50.00	MD-230-P	WO**1204
M5080-D24-W12	50.80	MD-240-P	WO**1204
M5100-D24-W12	51.00	MD-240-P	WO**1204
M5200-D25-W12	52.00	MD-250-P	WO**1204
M5300-D26-W12	53.00	MD-260-P	WO**1204
M5398-D27-W12	53.98	MD-270-P	WO**1204
M5400-D27-W12	54.00	MD-270-P	WO**1204
M5500-D28-W12	55.00	MD-280-P	WO**1204

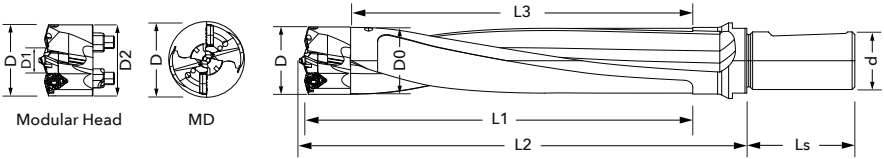
Insert pages :

WOMT...W... page 109

MD.....* page 110

KCNM...3D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

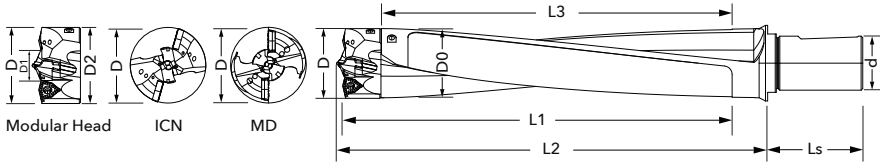
Specification	Drilling Holder	Dimensions								Accessories		
		D2	D0	d	L1	L2	L3	Ls				
M3800-D16-W10	W37-32-3D	37.5	37	32	125	165	100	60	K14-16.9	KCNM040120	T15	
M3810-D16-W10		37.5	37	32	125	165	100	60				
M3900-D18-W10		37.5	37	32	125	165	100	60				
M3920-D18-W10		37.5	37	32	125	165	100	60				
M3970-D18-W10		37.5	37	32	125	165	100	60				
M4000-D18-W10	W39-50-3D	39.5	39	50	135	180	110	60	K17-20			
M4100-D19-W10		39.5	39	50	135	180	110	60				
M4128-D19-W10		39.5	39	50	135	180	110	60				
M4200-D19-W10	W41-50-3D	41.5	41	50	140	185	115	80	K14-16.9			
M4300-D16-W12		41.5	41	50	140	185	115	80				
M4400-D18-W12		41.5	41	50	140	185	115	80				
M4445-D18-W12		41.5	41	50	140	185	115	80				
M4500-D18-W12		44.5	44	50	150	195	124	80				
M4600-D19-W12	W44-50-3D	44.5	44	50	150	195	124	80	K17-19.9			
M4700-D20-W12		44.5	44	50	150	195	124	80				
M4763-D21-W12		44.5	44	50	150	195	124	80				
M4800-D21-W12	W47-50-3D	47.5	47	50	160	200	125	80	K20-26			
M4900-D22-W12		47.5	47	50	160	200	125	80				
M5000-D23-W12		47.5	47	50	160	200	125	80				
M5080-D24-W12	W50-50-3D	50.3	49.8	50	170	210	135	80				
M5100-D24-W12		50.3	49.8	50	170	210	135	80				
M5200-D25-W12		50.3	49.8	50	170	210	135	80				
M5300-D26-W12		50.3	49.8	50	170	210	135	80				
M5398-D27-W12	W53-50-3D	53.4	53	50	175	215	140	80				
M5400-D27-W12		53.4	53	50	175	215	140	80				
M5500-D28-W12		53.4	53	50	175	215	140	80				



KCNM...3D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
P5600-D20-W15	56.00	MD-200-P	WO**1503
P5700-D21-W15	57.00	MD-210-P	WO**1503
P5800-D22-W15	58.00	MD-220-P	WO**1503
P5900-D23-W15	59.00	MD-230-P	WO**1503
P6000-D24-W15	60.00	MD-240-P	WO**1503
P6100-D25-W15	61.00	MD-250-P	WO**1503
P6200-D26-W15	62.00	MD-260-P	WO**1503
P6300-D27-W15	63.00	MD-270-P	WO**1503
P6400-D28-W15	64.00	MD-280-P	WO**1503
P6500-ICN29-W15	65.00	ICN-290-P	WO**1503
P6600-ICN30-W15	66.00	ICN-300-P	WO**1503
P6700-ICN31-W15	67.00	ICN-310-P	WO**1503
P6800-ICN32-W15	68.00	ICN-320-P	WO**1503
P6900-ICN33-W15	69.00	ICN-330-P	WO**1503
P7000-ICN34-W15	70.00	ICN-340-P	WO**1503
P7100-ICN35-W15	71.00	ICN-350-P	WO**1503
P7200-ICN36-W15	72.00	ICN-360-P	WO**1503
P7300-ICN37-W15	73.00	ICN-370-P	WO**1503
P7400-ICN38-W15	74.00	ICN-380-P	WO**1503
P7500-ICN39-W15	75.00	ICN-390-P	WO**1503
P7600-ICN40-W15	76.00	ICN-400-P	WO**1503
P7700-ICN41-W15	77.00	ICN-410-P	WO**1503
P7800-ICN42-W15	78.00	ICN-420-P	WO**1503
P7900-ICN43-W15	79.00	ICN-430-P	WO**1503
P8000-ICN44-W15	80.00	ICN-440-P	WO**1503

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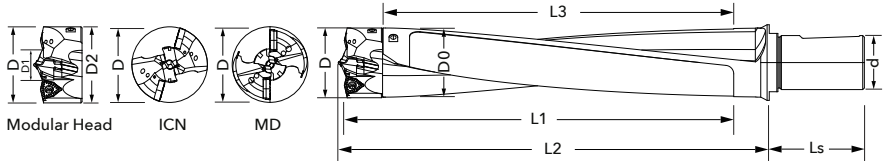
WOMT...W... page 109

MD.....* page 110



KCNM...3D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

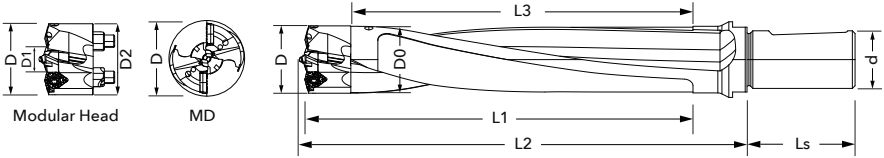
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
P5600-D20-W15	B53-50-3D	55	53	50	214	237	180	80	K20-26	KCNM050100	T20
P5700-D21-W15		56	53	50	214	237	180	80			
P5800-D22-W15		57	53	50	214	237	180	80			
P5900-D23-W15	B58-50-3D	58	58	50	234	262	200	80			
P6000-D24-W15		59	58	50	234	262	200	80			
P6100-D25-W15		60	58	50	234	262	200	80			
P6200-D26-W15		61	58	50	234	262	200	80			
P6300-D27-W15		62	58	50	234	262	200	80			
P6400-D28-W15	63	58	50	234	262	200	80				
P6500-ICN29-W15	B64-50-3D	64	64	50	250	273	215	80			
P6600-ICN30-W15		65	64	50	250	273	215	80			
P6700-ICN31-W15		66	64	50	250	273	215	80			
P6800-ICN32-W15		67	64	50	250	273	215	80			
P6900-ICN33-W15		68	64	50	250	273	215	80			
P7000-ICN34-W15		69	64	50	250	273	215	80			
P7100-ICN35-W15		70	64	50	250	273	215	80			
P7200-ICN36-W15	B71-50-3D	71	71	50	285	305	245	80	K33-38	KCNM050100	T20
P7300-ICN37-W15		72	71	50	285	305	245	80			
P7400-ICN38-W15		73	71	50	285	305	245	80			
P7500-ICN39-W15		74	71	50	285	305	245	80			
P7600-ICN40-W15		75	71	50	285	305	245	80	K39-45		
P7700-ICN41-W15		76	71	50	285	305	245	80			
P7800-ICN42-W15		77	71	50	285	305	245	80			
P7900-ICN43-W15		78	71	50	285	305	245	80			
P8000-ICN44-W15		79	71	50	285	305	245	80			



KCNM...5D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M2800-D14-A04	28.00	MD-140-P	AO**0403
M2858-D15-A04	28.58	MD-150-P	AO**0403
M2900-D16-A04	29.00	MD-160-P	AO**0403
M2936-D16-A04	29.36	MD-160-P	AO**0403
M3000-D16-A04	30.00	MD-160-P	AO**0403
M3018-D18-A04	30.18	MD-180-P	AO**0403
M3096-D18-A04	30.96	MD-180-P	AO**0403
M3100-D18-A04	31.00	MD-180-P	AO**0403
M3175-D15-W08	31.75	MD-150-P	WO**0803
M3200-D15-W08	32.00	MD-150-P	WO**0803
M3300-D16-W08	33.00	MD-160-P	WO**0803
M3320-D16-W08	33.20	MD-160-P	WO**0803
M3335-D16-W08	33.35	MD-160-P	WO**0803
M3400-D18-W08	34.00	MD-180-P	WO**0803
M3493-D18-W08	34.93	MD-180-P	WO**0803
M3500-D18-W08	35.00	MD-180-P	WO**0803
M3600-D18-W08	36.00	MD-180-P	WO**0803
M3653-D19-W08	36.53	MD-190-P	WO**0803
M3700-D16-W10	37.00	MD-160-P	WO**1003
M3750-D16-W10	37.50	MD-160-P	WO**1003

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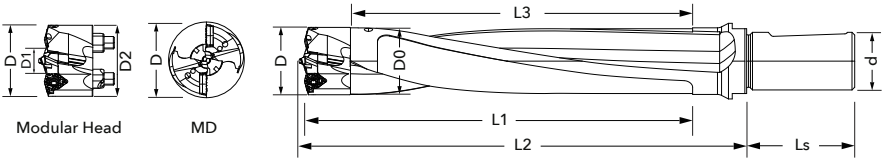
AOMT... page 109

WOMT...W... page 109

MD.....* page 110

KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

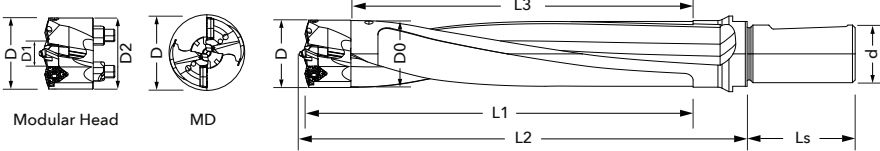
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M2800-D14-A04	W27-32-5D	27.5	27	32	155	194	135	60	K14-16.9	KCNM025080	T9
M2858-D15-A04		27.5	27	32	155	194	135	60			
M2900-D16-A04		27.5	27	32	155	194	135	60			
M2936-D16-A04		27.5	27	32	155	194	135	60			
M3000-D16-A04	W29-32-5D	29.5	29	32	160	199	140	60	K17-19.9	KCNM025080	T9
M3018-D18-A04		29.5	29	32	160	199	140	60			
M3096-D18-A04		29.5	29	32	160	199	140	60			
M3100-D18-A04		29.5	29	32	160	199	140	60			
M3175-D15-W08	W31-32-5D	31.25	30.75	32	177	212	155	60	K14-16.9	KCNM030100	T10
M3200-D15-W08		31.25	30.75	32	177	212	155	60			
M3300-D16-W08		31.25	30.75	32	177	212	155	60			
M3320-D16-W08		31.25	30.75	32	177	212	155	60			
M3335-D16-W08		31.25	30.75	32	177	212	155	60			
M3400-D18-W08		31.25	30.75	32	177	212	155	60			
M3493-D18-W08	31.25	30.75	32	177	212	155	60				
M3500-D18-W08	W34-32-5D	34.5	34	32	192	230	170	60	K17-19.9	KCNM030100	T10
M3600-D18-W08		34.5	34	32	192	230	170	60			
M3653-D19-W08		34.5	34	32	192	230	170	60			
M3700-D16-W10		34.5	34	32	192	230	170	60			
M3750-D16-W10		34.5	34	32	192	230	170	60			
									K14-16.9	KCNM040120	T15



KCNM...5D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M3800-D16-W10	38.00	MD-160-P	WO**1003
M3810-D16-W10	38.10	MD-160-P	WO**1003
M3900-D18-W10	39.00	MD-180-P	WO**1003
M3920-D18-W10	39.20	MD-180-P	WO**1003
M3970-D18-W10	39.70	MD-180-P	WO**1003
M4000-D18-W10	40.00	MD-180-P	WO**1003
M4100-D19-W10	41.00	MD-190-P	WO**1003
M4128-D19-W10	41.28	MD-190-P	WO**1003
M4200-D19-W10	42.00	MD-190-P	WO**1204
M4300-D16-W12	43.00	MD-160-P	WO**1204
M4400-D18-W12	44.00	MD-180-P	WO**1204
M4445-D18-W12	44.45	MD-180-P	WO**1204
M4500-D18-W12	45.00	MD-180-P	WO**1204
M4600-D19-W12	46.00	MD-190-P	WO**1204
M4700-D20-W12	47.00	MD-200-P	WO**1204
M4763-D21-W12	47.63	MD-210-P	WO**1204
M4800-D21-W12	48.00	MD-210-P	WO**1204
M4900-D22-W12	49.00	MD-220-P	WO**1204
M5000-D23-W12	50.00	MD-230-P	WO**1204
M5080-D24-W12	50.80	MD-240-P	WO**1204
M5100-D24-W12	51.00	MD-240-P	WO**1204
M5200-D25-W12	52.00	MD-250-P	WO**1204
M5300-D26-W12	53.00	MD-260-P	WO**1204
M5398-D27-W12	53.98	MD-270-P	WO**1204
M5400-D27-W12	54.00	MD-270-P	WO**1204
M5500-D28-W12	55.00	MD-280-P	WO**1204

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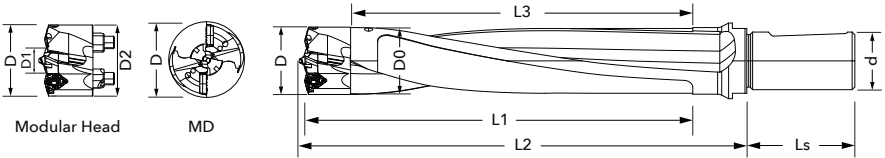
WOMT...W... page 109

MD.....* page 110



KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

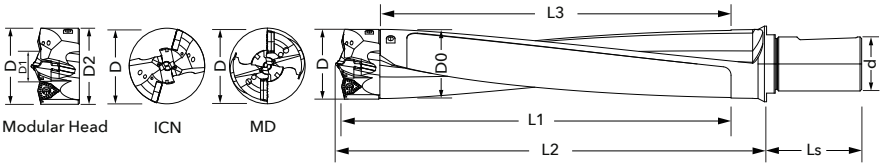
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M3800-D16-W10	W37-32-5D	37.5	37	32	215	245	190	60	K14-16.9	KCNM040120	T15
M3810-D16-W10		37.5	37	32	215	245	190	60			
M3900-D18-W10		37.5	37	32	215	245	190	60			
M3920-D18-W10		37.5	37	32	215	245	190	60			
M3970-D18-W10		37.5	37	32	215	245	190	60			
M4000-D18-W10	W39-50-5D	39.5	39	50	220	265	195	60	K17-20		
M4100-D19-W10		39.5	39	50	220	265	195	60			
M4128-D19-W10		39.5	39	50	220	265	195	60			
M4200-D19-W10	W41-50-5D	41.5	41	50	230	277	205	80	K14-16.9		
M4300-D16-W12		41.5	41	50	230	277	205	80			
M4400-D18-W12		41.5	41	50	230	277	205	80			
M4445-D18-W12		41.5	41	50	230	277	205	80			
M4500-D18-W12	W44-50-5D	44.5	44	50	245	285	219	80	K17-19.9		
M4600-D19-W12		44.5	44	50	245	285	219	80			
M4700-D20-W12		44.5	44	50	245	285	219	80			
M4763-D21-W12		44.5	44	50	245	285	219	80			
M4800-D21-W12		47.5	47	50	260	305	225	80			
M4900-D22-W12	W47-50-5D	47.5	47	50	260	305	225	80	K20-26		
M5000-D23-W12		47.5	47	50	260	305	225	80			
M5080-D24-W12	W50-50-5D	50.3	49.8	50	275	315	240	80			
M5100-D24-W12		50.3	49.8	50	275	315	240	80			
M5200-D25-W12		50.3	49.8	50	275	315	240	80			
M5300-D26-W12		50.3	49.8	50	275	315	240	80			
M5398-D27-W12	W53-50-5D	53.4	53	50	280	320	245	80			
M5400-D27-W12		53.4	53	50	280	320	245	80			
M5500-D28-W12		53.4	53	50	280	320	245	80			



KCNM...5D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
P5600-D20-W15	56.00	MD-200-P	WO**1503
P5700-D21-W15	57.00	MD-210-P	WO**1503
P5800-D22-W15	58.00	MD-220-P	WO**1503
P5900-D23-W15	59.00	MD-230-P	WO**1503
P6000-D24-W15	60.00	MD-240-P	WO**1503
P6100-D25-W15	61.00	MD-250-P	WO**1503
P6200-D26-W15	62.00	MD-260-P	WO**1503
P6300-D27-W15	63.00	MD-270-P	WO**1503
P6400-D28-W15	64.00	MD-280-P	WO**1503
P6500-ICN29-W15	65.00	ICN-290-P	WO**1503
P6600-ICN30-W15	66.00	ICN-300-P	WO**1503
P6700-ICN31-W15	67.00	ICN-310-P	WO**1503
P6800-ICN32-W15	68.00	ICN-320-P	WO**1503
P6900-ICN33-W15	69.00	ICN-330-P	WO**1503
P7000-ICN34-W15	70.00	ICN-340-P	WO**1503
P7100-ICN35-W15	71.00	ICN-350-P	WO**1503
P7200-ICN36-W15	72.00	ICN-360-P	WO**1503
P7300-ICN37-W15	73.00	ICN-370-P	WO**1503
P7400-ICN38-W15	74.00	ICN-380-P	WO**1503
P7500-ICN39-W15	75.00	ICN-390-P	WO**1503
P7600-ICN40-W15	76.00	ICN-400-P	WO**1503
P7700-ICN41-W15	77.00	ICN-410-P	WO**1503
P7800-ICN42-W15	78.00	ICN-420-P	WO**1503
P7900-ICN43-W15	79.00	ICN-430-P	WO**1503
P8000-ICN44-W15	80.00	ICN-440-P	WO**1503

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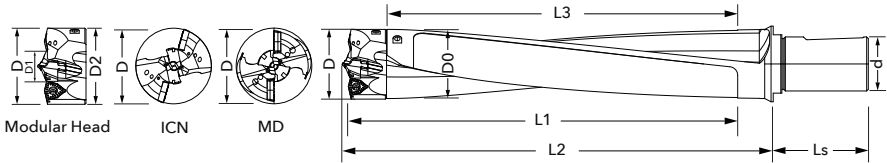
WOMT...W... page 109

MD.....* page 110



KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

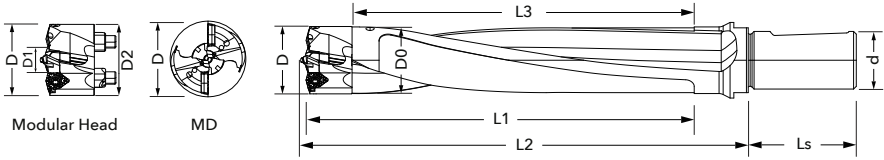
Specification	Drilling Holder	Dimensions						Accessories			
		D2	D0	d	L1	L2	L3	Ls			
P5600-D20-W15	B53-50-5D	55	53	50	321	321	287	80	K20-26	KCNM050100	T20
P5700-D21-W15		56	53	50	321	321	287	80			
P5800-D22-W15		57	53	50	321	321	287	80			
P5900-D23-W15	B58-50-5D	58	58	50	359	359	325	80			
P6000-D24-W15		59	58	50	359	359	325	80			
P6100-D25-W15		60	58	50	359	359	325	80			
P6200-D26-W15		61	58	50	359	359	325	80			
P6300-D27-W15		62	58	50	359	359	325	80			
P6400-D28-W15	63	58	50	359	359	325	80				
P6500-ICN29-W15	B64-50-5D	64	64	50	385	385	350	80	K27-32		
P6600-ICN30-W15		65	64	50	385	385	350	80			
P6700-ICN31-W15		66	64	50	385	385	350	80			
P6800-ICN32-W15		67	64	50	385	385	350	80			
P6900-ICN33-W15		68	64	50	385	385	350	80			
P7000-ICN34-W15		69	64	50	385	385	350	80			
P7100-ICN35-W15	B71-50-5D	70	64	50	385	385	350	80	K33-38		
P7200-ICN36-W15		71	71	50	445	445	405	80			
P7300-ICN37-W15		72	71	50	445	445	405	80			
P7400-ICN38-W15		73	71	50	445	445	405	80			
P7500-ICN39-W15		74	71	50	445	445	405	80	K39-45		
P7600-ICN40-W15		75	71	50	445	445	405	80			
P7700-ICN41-W15		76	71	50	445	445	405	80			
P7800-ICN42-W15		77	71	50	445	445	405	80			
P7900-ICN43-W15	78	71	50	445	445	405	80				
P8000-ICN44-W15	79	71	50	445	445	405	80				



KCNM...6D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 6XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M2800-D14-A04	28.00	MD-140-P	AO**0403
M2858-D15-A04	28.58	MD-150-P	AO**0403
M2900-D16-A04	29.00	MD-160-P	AO**0403
M2936-D16-A04	29.36	MD-160-P	AO**0403
M3000-D16-A04	30.00	MD-160-P	AO**0403
M3018-D18-A04	30.18	MD-180-P	AO**0403
M3096-D18-A04	30.96	MD-180-P	AO**0403
M3100-D18-A04	31.00	MD-180-P	AO**0403
M3175-D15-W08	31.75	MD-150-P	WO**0803
M3200-D15-W08	32.00	MD-150-P	WO**0803
M3300-D16-W08	33.00	MD-160-P	WO**0803
M3320-D16-W08	33.20	MD-160-P	WO**0803
M3335-D16-W08	33.35	MD-160-P	WO**0803
M3400-D18-W08	34.00	MD-180-P	WO**0803
M3493-D18-W08	34.93	MD-180-P	WO**0803
M3500-D18-W08	35.00	MD-180-P	WO**0803
M3600-D18-W08	36.00	MD-180-P	WO**0803
M3653-D19-W08	36.53	MD-190-P	WO**0803
M3700-D16-W10	37.00	MD-160-P	WO**1003
M3750-D16-W10	37.50	MD-160-P	WO**1003

Insert pages :

AOMT... page 109

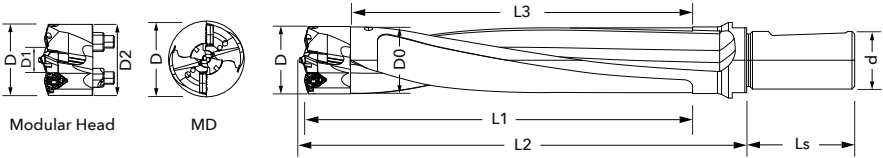
WOMT...W... page 109

MD.....* page 110



KCNM...6D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 6XD



Unit: mm

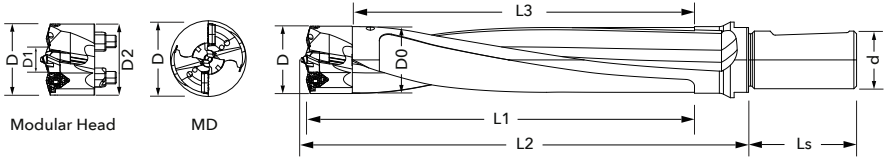
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M2800-D14-A04	W27-32-6D	27.5	27	32	180	220	160	60	K14-16.9	KCNM025080	T9
M2858-D15-A04		27.5	27	32	180	220	160	60			
M2900-D16-A04		27.5	27	32	180	220	160	60			
M2936-D16-A04		27.5	27	32	180	220	160	60			
M3000-D16-A04	W29-32-6D	29.5	29	32	195	233	175	60	K17-19.9	KCNM030080	T10
M3018-D18-A04		29.5	29	32	195	233	175	60			
M3096-D18-A04		29.5	29	32	195	233	175	60			
M3100-D18-A04		29.5	29	32	195	233	175	60			
M3175-D15-W08	W31-32-6D	31.25	30.75	32	211	246	189	60	K14-16.9	KCNM030080	T10
M3200-D15-W08		31.25	30.75	32	211	246	189	60			
M3300-D16-W08		31.25	30.75	32	211	246	189	60			
M3320-D16-W08		31.25	30.75	32	211	246	189	60			
M3335-D16-W08		31.25	30.75	32	211	246	189	60			
M3400-D18-W08		31.25	30.75	32	211	246	189	60			
M3493-D18-W08	31.25	30.75	32	211	246	189	60				
M3500-D18-W08	W34-32-6D	34.5	34	32	227	265	205	60	K17-19.9	KCNM040120	T15
M3600-D18-W08		34.5	34	32	227	265	205	60			
M3653-D19-W08		34.5	34	32	227	265	205	60			
M3700-D16-W10		34.5	34	32	227	265	205	60			
M3750-D16-W10	34.5	34	32	227	265	205	60	K14-16.9	KCNM040120	T15	



KCNM...6D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 6XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M3800-D16-W10	38.00	MD-160-P	WO**1003
M3810-D16-W10	38.10	MD-160-P	WO**1003
M3900-D18-W10	39.00	MD-180-P	WO**1003
M3920-D18-W10	39.20	MD-180-P	WO**1003
M3970-D18-W10	39.70	MD-180-P	WO**1003
M4000-D18-W10	40.00	MD-180-P	WO**1003
M4100-D19-W10	41.00	MD-190-P	WO**1003
M4128-D19-W10	41.28	MD-190-P	WO**1003
M4200-D19-W10	42.00	MD-190-P	WO**1204
M4300-D16-W12	43.00	MD-160-P	WO**1204
M4400-D18-W12	44.00	MD-180-P	WO**1204
M4445-D18-W12	44.45	MD-180-P	WO**1204
M4500-D18-W12	45.00	MD-180-P	WO**1204
M4600-D19-W12	46.00	MD-190-P	WO**1204
M4700-D20-W12	47.00	MD-200-P	WO**1204
M4763-D21-W12	47.63	MD-210-P	WO**1204
M4800-D21-W12	48.00	MD-210-P	WO**1204
M4900-D22-W12	49.00	MD-220-P	WO**1204
M5000-D23-W12	50.00	MD-230-P	WO**1204
M5080-D24-W12	50.80	MD-240-P	WO**1204
M5100-D24-W12	51.00	MD-240-P	WO**1204
M5200-D25-W12	52.00	MD-250-P	WO**1204
M5300-D26-W12	53.00	MD-260-P	WO**1204
M5398-D27-W12	53.98	MD-270-P	WO**1204
M5400-D27-W12	54.00	MD-270-P	WO**1204
M5500-D28-W12	55.00	MD-280-P	WO**1204

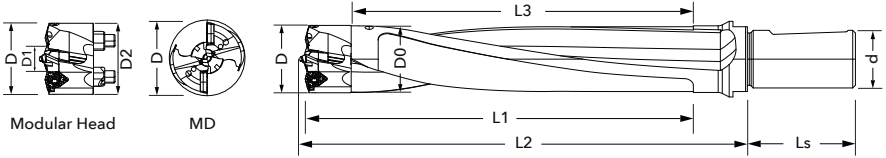
Insert pages :

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MD.....* page 110

KCNM...6D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 6XD



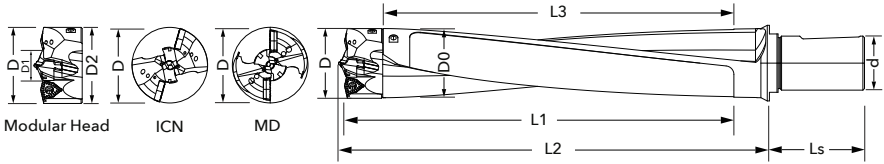
Unit: mm

Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M3800-D16-W10	W37-32-6D	37.5	37	32	255	290	230	60	K14-16.9	KCNM040120	T15
M3810-D16-W10		37.5	37	32	255	290	230	60			
M3900-D18-W10		37.5	37	32	255	290	230	60			
M3920-D18-W10		37.5	37	32	255	290	230	60			
M3970-D18-W10		37.5	37	32	255	290	230	60			
M4000-D18-W10	W39-50-6D	39.5	39	50	257	305	232	60	K17-20		
M4100-D19-W10		39.5	39	50	257	305	232	60			
M4128-D19-W10		39.5	39	50	257	305	232	60			
M4200-D19-W10	W41-50-6D	41.5	41	50	275	320	250	80	K14-16.9		
M4300-D16-W12		41.5	41	50	275	320	250	80			
M4400-D18-W12		41.5	41	50	275	320	250	80			
M4445-D18-W12		41.5	41	50	275	320	250	80			
M4500-D18-W12	W44-50-6D	44.5	44	50	295	350	269	80	K17-19.9		
M4600-D19-W12		44.5	44	50	295	350	269	80			
M4700-D20-W12		44.5	44	50	295	350	269	80			
M4763-D21-W12		44.5	44	50	295	350	269	80			
M4800-D21-W12		47.5	47	50	310	350	275	80			
M4900-D22-W12	W47-50-6D	47.5	47	50	310	350	275	80	K20-26		
M5000-D23-W12		47.5	47	50	310	350	275	80			
M5080-D24-W12	W50-50-6D	50.3	49.8	50	330	370	295	80			
M5100-D24-W12		50.3	49.8	50	330	370	295	80			
M5200-D25-W12		50.3	49.8	50	330	370	295	80			
M5300-D26-W12		50.3	49.8	50	330	370	295	80			
M5398-D27-W12	W53-50-6D	53.4	53	50	340	380	305	80			
M5400-D27-W12		53.4	53	50	340	380	305	80			
M5500-D28-W12		53.4	53	50	340	380	305	80			



KCNM...6D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 6XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
P5600-D20-W15	56.00	MD-200-P	WO**1503
P5700-D21-W15	57.00	MD-210-P	WO**1503
P5800-D22-W15	58.00	MD-220-P	WO**1503
P5900-D23-W15	59.00	MD-230-P	WO**1503
P6000-D24-W15	60.00	MD-240-P	WO**1503
P6100-D25-W15	61.00	MD-250-P	WO**1503
P6200-D26-W15	62.00	MD-260-P	WO**1503
P6300-D27-W15	63.00	MD-270-P	WO**1503
P6400-D28-W15	64.00	MD-280-P	WO**1503
P6500-ICN29-W15	65.00	ICN-290-P	WO**1503
P6600-ICN30-W15	66.00	ICN-300-P	WO**1503
P6700-ICN31-W15	67.00	ICN-310-P	WO**1503
P6800-ICN32-W15	68.00	ICN-320-P	WO**1503
P6900-ICN33-W15	69.00	ICN-330-P	WO**1503
P7000-ICN34-W15	70.00	ICN-340-P	WO**1503
P7100-ICN35-W15	71.00	ICN-350-P	WO**1503
P7200-ICN36-W15	72.00	ICN-360-P	WO**1503
P7300-ICN37-W15	73.00	ICN-370-P	WO**1503
P7400-ICN38-W15	74.00	ICN-380-P	WO**1503
P7500-ICN39-W15	75.00	ICN-390-P	WO**1503
P7600-ICN40-W15	76.00	ICN-400-P	WO**1503
P7700-ICN41-W15	77.00	ICN-410-P	WO**1503
P7800-ICN42-W15	78.00	ICN-420-P	WO**1503
P7900-ICN43-W15	79.00	ICN-430-P	WO**1503
P8000-ICN44-W15	80.00	ICN-440-P	WO**1503

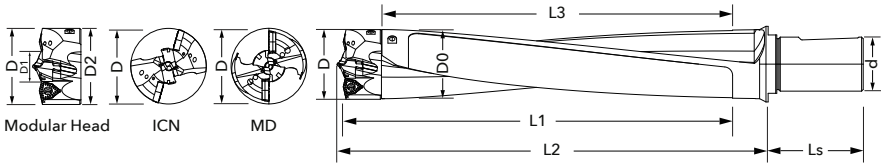
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MD.....* page 110

KCNM...6D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 6XD



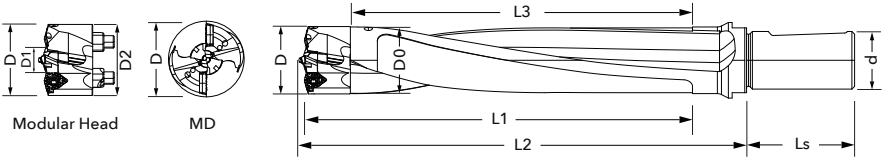
Unit: mm

Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
P5600-D20-W15	B53-50-6D	55	53	50	374	397	340	80	K20-26	KCNM050100	T20
P5700-D21-W15		56	53	50	374	397	340	80			
P5800-D22-W15		57	53	50	374	397	340	80			
P5900-D23-W15	B58-50-6D	58	58	50	422	450	388	80			
P6000-D24-W15		59	58	50	422	450	325	80			
P6100-D25-W15		60	58	50	422	450	325	80			
P6200-D26-W15		61	58	50	422	450	325	80			
P6300-D27-W15		62	58	50	422	450	325	80			
P6400-D28-W15	63	58	50	422	450	325	80				
P6500-ICN29-W15	B64-50-6D	64	64	50	431	454	396	80			
P6600-ICN30-W15		65	64	50	431	454	396	80			
P6700-ICN31-W15		66	64	50	431	454	396	80			
P6800-ICN32-W15		67	64	50	431	454	396	80			
P6900-ICN33-W15		68	64	50	431	454	396	80			
P7000-ICN34-W15		69	64	50	431	454	396	80			
P7100-ICN35-W15		70	64	50	431	454	396	80			
P7200-ICN36-W15	B71-50-6D	71	71	50	525	465	485	80	K33-38	KCNM050100	T20
P7300-ICN37-W15		72	71	50	525	465	485	80			
P7400-ICN38-W15		73	71	50	525	465	485	80			
P7500-ICN39-W15		74	71	50	525	465	485	80			
P7600-ICN40-W15		75	71	50	525	465	485	80	K39-45		
P7700-ICN41-W15		76	71	50	525	465	485	80			
P7800-ICN42-W15		77	71	50	525	465	485	80			
P7900-ICN43-W15		78	71	50	525	465	485	80			
P8000-ICN44-W15		79	71	50	525	465	485	80			



KCNM...7D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M2800-D14-A04	28.00	MD-140-P	AO**0403
M2858-D15-A04	28.58	MD-150-P	AO**0403
M2900-D16-A04	29.00	MD-160-P	AO**0403
M2936-D16-A04	29.36	MD-160-P	AO**0403
M3000-D16-A04	30.00	MD-160-P	AO**0403
M3018-D18-A04	30.18	MD-180-P	AO**0403
M3096-D18-A04	30.96	MD-180-P	AO**0403
M3100-D18-A04	31.00	MD-180-P	AO**0403
M3175-D15-W08	31.75	MD-150-P	WO**0803
M3200-D15-W08	32.00	MD-150-P	WO**0803
M3300-D16-W08	33.00	MD-160-P	WO**0803
M3320-D16-W08	33.20	MD-160-P	WO**0803
M3335-D16-W08	33.35	MD-160-P	WO**0803
M3400-D18-W08	34.00	MD-180-P	WO**0803
M3493-D18-W08	34.93	MD-180-P	WO**0803
M3500-D18-W08	35.00	MD-180-P	WO**0803
M3600-D18-W08	36.00	MD-180-P	WO**0803
M3653-D19-W08	36.53	MD-190-P	WO**0803
M3700-D16-W10	37.00	MD-160-P	WO**1003
M3750-D16-W10	37.50	MD-160-P	WO**1003

Insert pages :

AOMT... page 109

WOMT...W... page 109

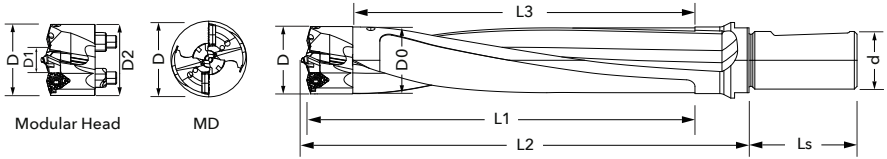
MD.....* page 110



KCNM...7D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

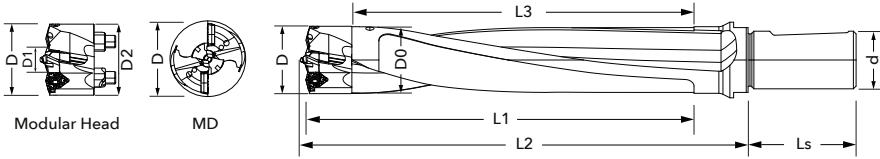
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M2800-D14-A04	W27-32-7D	27.5	27	32	215	255	195	60	K14-16.9	KCNM025080	T9
M2858-D15-A04		27.5	27	32	215	255	195	60			
M2900-D16-A04		27.5	27	32	215	255	195	60			
M2936-D16-A04		27.5	27	32	215	255	195	60			
M3000-D16-A04	W29-32-7D	29.5	29	32	220	258	200	60	K17-19.9	KCNM030100	T10
M3018-D18-A04		29.5	29	32	220	258	200	60			
M3096-D18-A04		29.5	29	32	220	258	200	60			
M3100-D18-A04		29.5	29	32	220	258	200	60			
M3175-D15-W08	W31-32-7D	31.25	30.75	32	251	286	229	60	K14-16.9	KCNM030100	T10
M3200-D15-W08		31.25	30.75	32	251	286	229	60			
M3300-D16-W08		31.25	30.75	32	251	286	229	60			
M3320-D16-W08		31.25	30.75	32	251	286	229	60			
M3335-D16-W08		31.25	30.75	32	251	286	229	60			
M3400-D18-W08		31.25	30.75	32	251	286	229	60			
M3493-D18-W08	31.25	30.75	32	251	286	229	60				
M3500-D18-W08	W34-32-7D	34.5	34	32	272	308	250	60	K17-19.9	KCNM040120	T15
M3600-D18-W08		34.5	34	32	272	308	250	60			
M3653-D19-W08		34.5	34	32	272	308	250	60			
M3700-D16-W10		34.5	34	32	272	308	250	60			
M3750-D16-W10		34.5	34	32	272	308	250	60			



KCNM...7D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M3800-D16-W10	38.00	MD-160-P	WO**1003
M3810-D16-W10	38.10	MD-160-P	WO**1003
M3900-D18-W10	39.00	MD-180-P	WO**1003
M3920-D18-W10	39.20	MD-180-P	WO**1003
M3970-D18-W10	39.70	MD-180-P	WO**1003
M4000-D18-W10	40.00	MD-180-P	WO**1003
M4100-D19-W10	41.00	MD-190-P	WO**1003
M4128-D19-W10	41.28	MD-190-P	WO**1003
M4200-D19-W10	42.00	MD-190-P	WO**1204
M4300-D16-W12	43.00	MD-160-P	WO**1204
M4400-D18-W12	44.00	MD-180-P	WO**1204
M4445-D18-W12	44.45	MD-180-P	WO**1204
M4500-D18-W12	45.00	MD-180-P	WO**1204
M4600-D19-W12	46.00	MD-190-P	WO**1204
M4700-D20-W12	47.00	MD-200-P	WO**1204
M4763-D21-W12	47.63	MD-210-P	WO**1204
M4800-D21-W12	48.00	MD-210-P	WO**1204
M4900-D22-W12	49.00	MD-220-P	WO**1204
M5000-D23-W12	50.00	MD-230-P	WO**1204
M5080-D24-W12	50.80	MD-240-P	WO**1204
M5100-D24-W12	51.00	MD-240-P	WO**1204
M5200-D25-W12	52.00	MD-250-P	WO**1204
M5300-D26-W12	53.00	MD-260-P	WO**1204
M5398-D27-W12	53.98	MD-270-P	WO**1204
M5400-D27-W12	54.00	MD-270-P	WO**1204
M5500-D28-W12	55.00	MD-280-P	WO**1204

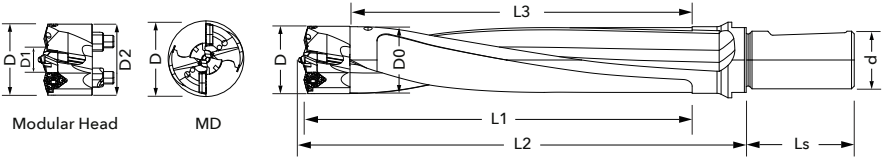
Insert pages :

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MD.....* page 110

KCNM...7D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

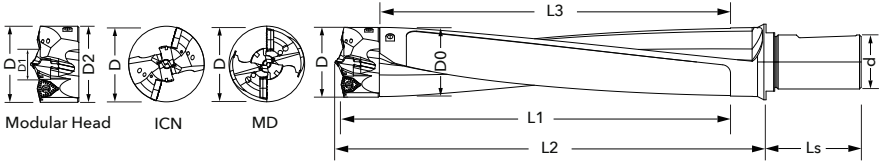
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M3800-D16-W10	W37-32-7D	37.5	37	32	295	329	270	60	K14-16.9	KCNM040120	T15
M3810-D16-W10		37.5	37	32	295	329	270	60			
M3900-D18-W10		37.5	37	32	295	329	270	60			
M3920-D18-W10		37.5	37	32	295	329	270	60			
M3970-D18-W10		37.5	37	32	295	329	270	60			
M4000-D18-W10	W39-50-7D	39.5	39	50	300	343	275	60	K17-20		
M4100-D19-W10		39.5	39	50	300	343	275	60			
M4128-D19-W10		39.5	39	50	300	343	275	60			
M4200-D19-W10	W41-50-7D	41.5	41	50	320	360	295	80	K14-16.9		
M4300-D16-W12		41.5	41	50	320	360	295	80			
M4400-D18-W12		41.5	41	50	320	360	295	80			
M4445-D18-W12		41.5	41	50	320	360	295	80			
M4500-D18-W12	W44-50-7D	44.5	44	50	346	390	320	80	K17-19.9		
M4600-D19-W12		44.5	44	50	346	390	320	80			
M4700-D20-W12		44.5	44	50	346	390	320	80			
M4763-D21-W12		44.5	44	50	346	390	320	80			
M4800-D21-W12		47.5	47	50	360	400	325	80			
M4900-D22-W12	W47-50-7D	47.5	47	50	360	400	325	80	K20-26		
M5000-D23-W12		47.5	47	50	360	400	325	80			
M5080-D24-W12	W50-50-7D	50.3	49.8	50	375	415	340	80			
M5100-D24-W12		50.3	49.8	50	375	415	340	80			
M5200-D25-W12		50.3	49.8	50	375	415	340	80			
M5300-D26-W12		50.3	49.8	50	375	415	340	80			
M5398-D27-W12		53.4	53	50	385	425	350	80			
M5400-D27-W12	W53-50-7D	53.4	53	50	385	425	350	80			
M5500-D28-W12		53.4	53	50	385	425	350	80			



KCNM...7D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
P5600-D20-W15	56.00	MD-200-P	WO**1503
P5700-D21-W15	57.00	MD-210-P	WO**1503
P5800-D22-W15	58.00	MD-220-P	WO**1503
P5900-D23-W15	59.00	MD-230-P	WO**1503
P6000-D24-W15	60.00	MD-240-P	WO**1503
P6100-D25-W15	61.00	MD-250-P	WO**1503
P6200-D26-W15	62.00	MD-260-P	WO**1503
P6300-D27-W15	63.00	MD-270-P	WO**1503
P6400-D28-W15	64.00	MD-280-P	WO**1503
P6500-ICN29-W15	65.00	ICN-290-P	WO**1503
P6600-ICN30-W15	66.00	ICN-300-P	WO**1503
P6700-ICN31-W15	67.00	ICN-310-P	WO**1503
P6800-ICN32-W15	68.00	ICN-320-P	WO**1503
P6900-ICN33-W15	69.00	ICN-330-P	WO**1503
P7000-ICN34-W15	70.00	ICN-340-P	WO**1503
P7100-ICN35-W15	71.00	ICN-350-P	WO**1503
P7200-ICN36-W15	72.00	ICN-360-P	WO**1503
P7300-ICN37-W15	73.00	ICN-370-P	WO**1503
P7400-ICN38-W15	74.00	ICN-380-P	WO**1503
P7500-ICN39-W15	75.00	ICN-390-P	WO**1503
P7600-ICN40-W15	76.00	ICN-400-P	WO**1503
P7700-ICN41-W15	77.00	ICN-410-P	WO**1503
P7800-ICN42-W15	78.00	ICN-420-P	WO**1503
P7900-ICN43-W15	79.00	ICN-430-P	WO**1503
P8000-ICN44-W15	80.00	ICN-440-P	WO**1503

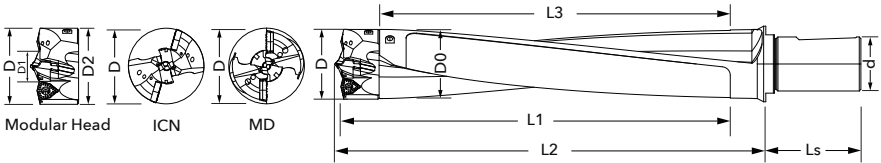
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WOMT...W... page 109

MD.....* page 110

KCNM...7D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

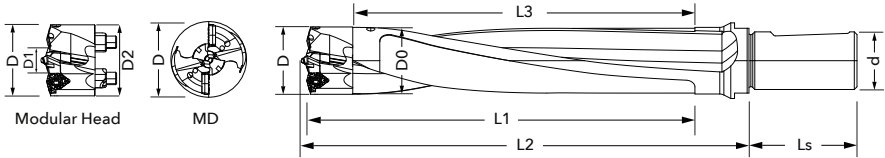
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
P5600-D20-W15	B53-50-7D	55	53	50	429	452	395	80	K20-26	KCNM050100	T20
P5700-D21-W15		56	53	50	429	452	395	80			
P5800-D22-W15		57	53	50	429	452	395	80			
P5900-D23-W15	B58-50-7D	58	58	50	486	514	452	80	K27-32	KCNM050100	T20
P6000-D24-W15		59	58	50	486	514	452	80			
P6100-D25-W15		60	58	50	486	514	452	80			
P6200-D26-W15		61	58	50	486	514	452	80			
P6300-D27-W15		62	58	50	486	514	452	80			
P6400-D28-W15	63	58	50	486	514	452	80				
P6500-ICN29-W15	B64-50-7D	64	64	50	525	548	490	80	K33-38	KCNM050100	T20
P6600-ICN30-W15		65	64	50	525	548	490	80			
P6700-ICN31-W15		66	64	50	525	548	490	80			
P6800-ICN32-W15		67	64	50	525	548	490	80			
P6900-ICN33-W15		68	64	50	525	548	490	80			
P7000-ICN34-W15		69	64	50	525	548	490	80			
P7100-ICN35-W15		70	64	50	525	548	480	80			
P7200-ICN36-W15	B71-50-7D	71	71	50	605	625	565	80	K39-45	KCNM050100	T20
P7300-ICN37-W15		72	71	50	605	625	565	80			
P7400-ICN38-W15		73	71	50	605	625	565	80			
P7500-ICN39-W15		74	71	50	605	625	565	80			
P7600-ICN40-W15		75	71	50	605	625	565	80			
P7700-ICN41-W15		76	71	50	605	625	565	80			
P7800-ICN42-W15		77	71	50	605	625	565	80			
P7900-ICN43-W15		78	71	50	605	625	565	80			
P8000-ICN44-W15	79	71	50	605	625	565	80				



KCNM...8D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M2800-D14-A04	28.00	MD-140-P	AO**0403
M2858-D15-A04	28.58	MD-150-P	AO**0403
M2900-D16-A04	29.00	MD-160-P	AO**0403
M2936-D16-A04	29.36	MD-160-P	AO**0403
M3000-D16-A04	30.00	MD-160-P	AO**0403
M3018-D18-A04	30.18	MD-180-P	AO**0403
M3096-D18-A04	30.96	MD-180-P	AO**0403
M3100-D18-A04	31.00	MD-180-P	AO**0403
M3175-D15-W08	31.75	MD-150-P	WO**0803
M3200-D15-W08	32.00	MD-150-P	WO**0803
M3300-D16-W08	33.00	MD-160-P	WO**0803
M3320-D16-W08	33.20	MD-160-P	WO**0803
M3335-D16-W08	33.35	MD-160-P	WO**0803
M3400-D18-W08	34.00	MD-180-P	WO**0803
M3493-D18-W08	34.93	MD-180-P	WO**0803
M3500-D18-W08	35.00	MD-180-P	WO**0803
M3600-D18-W08	36.00	MD-180-P	WO**0803
M3653-D19-W08	36.53	MD-190-P	WO**0803
M3700-D16-W10	37.00	MD-160-P	WO**1003
M3750-D16-W10	37.50	MD-160-P	WO**1003

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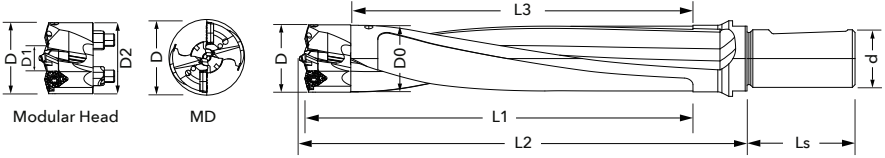
AOMT... page 109

WOMT...W... page 109

MD.....* page 110

KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

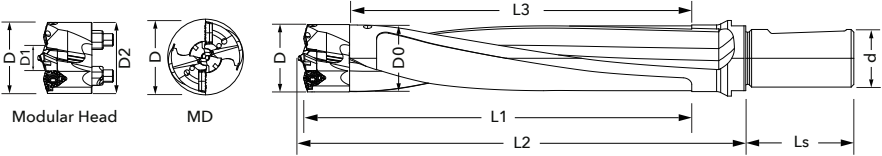
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M2800-D14-A04	W27-32-8D	27.5	27	32	245	285	225	60	K14-16.9	KCNM025080	T9
M2858-D15-A04		27.5	27	32	245	285	225	60			
M2900-D16-A04		27.5	27	32	245	285	225	60			
M2936-D16-A04		27.5	27	32	245	285	225	60			
M3000-D16-A04	W29-32-8D	29.5	29	32	250	288	230	60	K17-19.9	KCNM025080	T9
M3018-D18-A04		29.5	29	32	250	288	230	60			
M3096-D18-A04		29.5	29	32	250	288	230	60			
M3100-D18-A04		29.5	29	32	250	288	230	60			
M3175-D15-W08	W31-32-8D	31.25	30.75	32	279	314	257	60	K14-16.9	KCNM030100	T10
M3200-D15-W08		31.25	30.75	32	279	314	257	60			
M3300-D16-W08		31.25	30.75	32	279	314	257	60			
M3320-D16-W08		31.25	30.75	32	279	314	257	60			
M3335-D16-W08		31.25	30.75	32	279	314	257	60			
M3400-D18-W08		31.25	30.75	32	279	314	257	60			
M3493-D18-W08	31.25	30.75	32	279	314	257	60				
M3500-D18-W08	W34-32-8D	34.5	34	32	312	348	290	60	K17-19.9	KCNM030100	T10
M3600-D18-W08		34.5	34	32	312	348	290	60			
M3653-D19-W08		34.5	34	32	312	348	290	60			
M3700-D16-W10		34.5	34	32	312	348	290	60			
M3750-D16-W10		34.5	34	32	312	348	290	60			
									K14-16.9	KCNM040120	T15



KCNM...8D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M3800-D16-W10	38.00	MD-160-P	WO**1003
M3810-D16-W10	38.10	MD-160-P	WO**1003
M3900-D18-W10	39.00	MD-180-P	WO**1003
M3920-D18-W10	39.20	MD-180-P	WO**1003
M3970-D18-W10	39.70	MD-180-P	WO**1003
M4000-D18-W10	40.00	MD-180-P	WO**1003
M4100-D19-W10	41.00	MD-190-P	WO**1003
M4128-D19-W10	41.28	MD-190-P	WO**1003
M4200-D19-W10	42.00	MD-190-P	WO**1204
M4300-D16-W12	43.00	MD-160-P	WO**1204
M4400-D18-W12	44.00	MD-180-P	WO**1204
M4445-D18-W12	44.45	MD-180-P	WO**1204
M4500-D18-W12	45.00	MD-180-P	WO**1204
M4600-D19-W12	46.00	MD-190-P	WO**1204
M4700-D20-W12	47.00	MD-200-P	WO**1204
M4763-D21-W12	47.63	MD-210-P	WO**1204
M4800-D21-W12	48.00	MD-210-P	WO**1204
M4900-D22-W12	49.00	MD-220-P	WO**1204
M5000-D23-W12	50.00	MD-230-P	WO**1204
M5080-D24-W12	50.80	MD-240-P	WO**1204
M5100-D24-W12	51.00	MD-240-P	WO**1204
M5200-D25-W12	52.00	MD-250-P	WO**1204
M5300-D26-W12	53.00	MD-260-P	WO**1204
M5398-D27-W12	53.98	MD-270-P	WO**1204
M5400-D27-W12	54.00	MD-270-P	WO**1204
M5500-D28-W12	55.00	MD-280-P	WO**1204

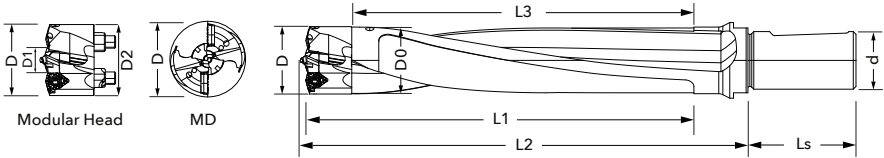
Insert pages :

WOMT...W... page 109

MD.....* page 110

KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

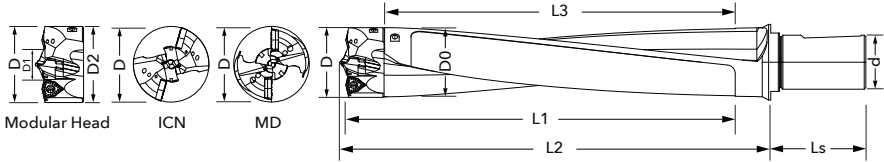
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M3800-D16-W10	W37-32-8D	37.5	37	32	335	366	310	60	K14-16.9	KCNM040120	T15
M3810-D16-W10		37.5	37	32	335	366	310	60			
M3900-D18-W10		37.5	37	32	335	366	310	60			
M3920-D18-W10		37.5	37	32	335	366	310	60			
M3970-D18-W10		37.5	37	32	335	366	310	60			
M4000-D18-W10	W39-50-8D	39.5	39	50	345	395	320	60	K17-20		
M4100-D19-W10		39.5	39	50	345	395	320	60			
M4128-D19-W10		39.5	39	50	345	395	320	60			
M4200-D19-W10	W41-50-8D	41.5	41	50	365	405	340	80	K14-16.9		
M4300-D16-W12		41.5	41	50	365	405	340	80			
M4400-D18-W12		41.5	41	50	365	405	340	80			
M4445-D18-W12		41.5	41	50	365	405	340	80			
M4500-D18-W12	W44-50-8D	44.5	44	50	390	435	364	80	K17-19.9		
M4600-D19-W12		44.5	44	50	390	435	364	80			
M4700-D20-W12		44.5	44	50	390	435	364	80			
M4763-D21-W12		44.5	44	50	390	435	364	80			
M4800-D21-W12	W47-50-8D	47.5	47	50	410	450	375	80	K20-26		
M4900-D22-W12		47.5	47	50	410	450	375	80			
M5000-D23-W12		47.5	47	50	410	450	375	80			
M5080-D24-W12	W50-50-8D	50.3	49.8	50	425	465	390	80			
M5100-D24-W12		50.3	49.8	50	425	465	390	80			
M5200-D25-W12		50.3	49.8	50	425	465	390	80			
M5300-D26-W12		50.3	49.8	50	425	465	390	80			
M5398-D27-W12	W53-50-8D	53.4	53	50	440	480	405	80			
M5400-D27-W12		53.4	53	50	440	480	405	80			
M5500-D28-W12		53.4	53	50	440	480	405	80			



KCNM...8D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
P5600-D20-W15	56.00	MD-200-P	WO**1503
P5700-D21-W15	57.00	MD-210-P	WO**1503
P5800-D22-W15	58.00	MD-220-P	WO**1503
P5900-D23-W15	59.00	MD-230-P	WO**1503
P6000-D24-W15	60.00	MD-240-P	WO**1503
P6100-D25-W15	61.00	MD-250-P	WO**1503
P6200-D26-W15	62.00	MD-260-P	WO**1503
P6300-D27-W15	63.00	MD-270-P	WO**1503
P6400-D28-W15	64.00	MD-280-P	WO**1503
P6500-ICN29-W15	65.00	ICN-290-P	WO**1503
P6600-ICN30-W15	66.00	ICN-300-P	WO**1503
P6700-ICN31-W15	67.00	ICN-310-P	WO**1503
P6800-ICN32-W15	68.00	ICN-320-P	WO**1503
P6900-ICN33-W15	69.00	ICN-330-P	WO**1503
P7000-ICN34-W15	70.00	ICN-340-P	WO**1503
P7100-ICN35-W15	71.00	ICN-350-P	WO**1503
P7200-ICN36-W15	72.00	ICN-360-P	WO**1503
P7300-ICN37-W15	73.00	ICN-370-P	WO**1503
P7400-ICN38-W15	74.00	ICN-380-P	WO**1503
P7500-ICN39-W15	75.00	ICN-390-P	WO**1503
P7600-ICN40-W15	76.00	ICN-400-P	WO**1503
P7700-ICN41-W15	77.00	ICN-410-P	WO**1503
P7800-ICN42-W15	78.00	ICN-420-P	WO**1503
P7900-ICN43-W15	79.00	ICN-430-P	WO**1503
P8000-ICN44-W15	80.00	ICN-440-P	WO**1503

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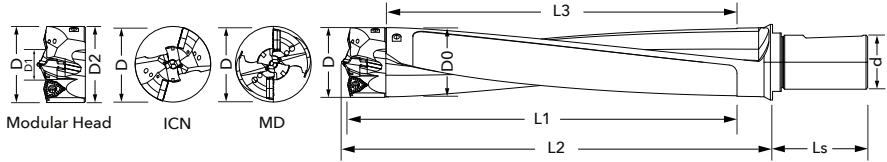
WOMT...W... page 109

MD.....* page 110



KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

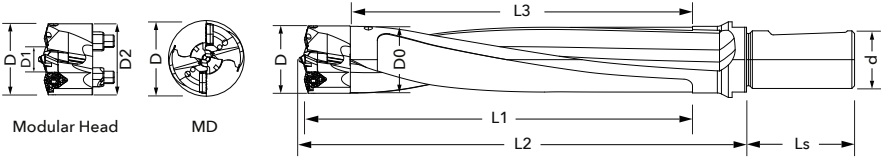
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
P5600-D20-W15	B53-50-8D	55	53	50	499	522	465	80	K20-26	KCNM050100	T20
P5700-D21-W15		56	53	50	499	522	465	80			
P5800-D22-W15		57	53	50	499	522	465	80			
P5900-D23-W15	B58-50-8D	58	58	50	548	576	514	80			
P6000-D24-W15		59	58	50	548	576	514	80			
P6100-D25-W15		60	58	50	548	576	514	80			
P6200-D26-W15		61	58	50	548	576	514	80			
P6300-D27-W15		62	58	50	548	576	514	80			
P6400-D28-W15		63	58	50	548	576	514	80			
P6500-ICN29-W15	B64-50-8D	64	64	50	595	618	560	80	K27-32		
P6600-ICN30-W15		65	64	50	595	618	560	80			
P6700-ICN31-W15		66	64	50	595	618	560	80			
P6800-ICN32-W15		67	64	50	595	618	560	80			
P6900-ICN33-W15		68	64	50	595	618	560	80			
P7000-ICN34-W15		69	64	50	595	618	560	80			
P7100-ICN35-W15		70	64	50	595	618	560	80			
P7200-ICN36-W15	B71-50-8D	71	71	50	685	705	645	80	K33-38		
P7300-ICN37-W15		72	71	50	685	705	645	80			
P7400-ICN38-W15		73	71	50	685	705	645	80			
P7500-ICN39-W15		74	71	50	685	705	645	80			
P7600-ICN40-W15		75	71	50	685	705	645	80			
P7700-ICN41-W15		76	71	50	685	705	645	80			
P7800-ICN42-W15		77	71	50	685	705	645	80			
P7900-ICN43-W15		78	71	50	685	705	645	80			
P8000-ICN44-W15		79	71	50	685	705	645	80			



KCNM...10D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M2800-D14-A04	28.00	MD-140-P	AO**0403
M2858-D15-A04	28.58	MD-150-P	AO**0403
M2900-D16-A04	29.00	MD-160-P	AO**0403
M2936-D16-A04	29.36	MD-160-P	AO**0403
M3000-D16-A04	30.00	MD-160-P	AO**0403
M3018-D18-A04	30.18	MD-180-P	AO**0403
M3096-D18-A04	30.96	MD-180-P	AO**0403
M3100-D18-A04	31.00	MD-180-P	AO**0403
M3175-D15-W08	31.75	MD-150-P	WO**0803
M3200-D15-W08	32.00	MD-150-P	WO**0803
M3300-D16-W08	33.00	MD-160-P	WO**0803
M3320-D16-W08	33.20	MD-160-P	WO**0803
M3335-D16-W08	33.35	MD-160-P	WO**0803
M3400-D18-W08	34.00	MD-180-P	WO**0803
M3493-D18-W08	34.93	MD-180-P	WO**0803
M3500-D18-W08	35.00	MD-180-P	WO**0803
M3600-D18-W08	36.00	MD-180-P	WO**0803
M3653-D19-W08	36.53	MD-190-P	WO**0803
M3700-D16-W10	37.00	MD-160-P	WO**1003
M3750-D16-W10	37.50	MD-160-P	WO**1003

Insert pages :

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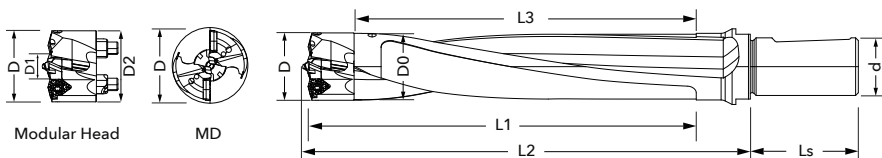
WOMT...W... page 109

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KCNM...10D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

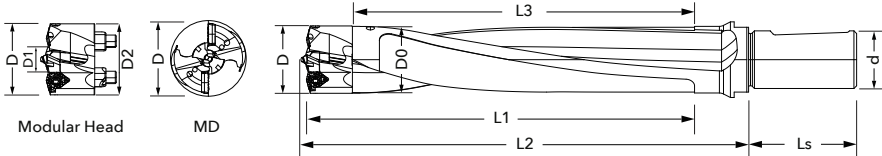
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M2800-D14-A04	W27-32-10D	27.5	27	32	300	340	280	60	K14-16.9	KCNM025080	T9
M2858-D15-A04		27.5	27	32	300	340	280	60			
M2900-D16-A04		27.5	27	32	300	340	280	60			
M2936-D16-A04		27.5	27	32	300	340	280	60			
M3000-D16-A04	W29-32-10D	29.5	29	32	310	348	290	60	K17-19.9	KCNM025080	T9
M3018-D18-A04		29.5	29	32	310	348	290	60			
M3096-D18-A04		29.5	29	32	310	348	290	60			
M3100-D18-A04		29.5	29	32	310	348	290	60			
M3175-D15-W08	W31-32-10D	31.25	30.75	32	349	384	327	60	K14-16.9	KCNM030100	T10
M3200-D15-W08		31.25	30.75	32	349	384	327	60			
M3300-D16-W08		31.25	30.75	32	349	384	327	60			
M3320-D16-W08		31.25	30.75	32	349	384	327	60			
M3335-D16-W08		31.25	30.75	32	349	384	327	60			
M3400-D18-W08		31.25	30.75	32	349	384	327	60			
M3493-D18-W08	31.25	30.75	32	349	384	327	60				
M3500-D18-W08	W34-32-10D	34.5	34	32	382	418	360	60	K17-19.9	KCNM030100	T10
M3600-D18-W08		34.5	34	32	382	418	360	60			
M3653-D19-W08		34.5	34	32	382	418	360	60			
M3700-D16-W10		34.5	34	32	382	418	360	60	K14-16.9		
M3750-D16-W10		34.5	34	32	382	418	360	60			



KCNM...10D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
M3800-D16-W10	38.00	MD-160-P	WO**1003
M3810-D16-W10	38.10	MD-160-P	WO**1003
M3900-D18-W10	39.00	MD-180-P	WO**1003
M3920-D18-W10	39.20	MD-180-P	WO**1003
M3970-D18-W10	39.70	MD-180-P	WO**1003
M4000-D18-W10	40.00	MD-180-P	WO**1003
M4100-D19-W10	41.00	MD-190-P	WO**1003
M4128-D19-W10	41.28	MD-190-P	WO**1003
M4200-D19-W10	42.00	MD-190-P	WO**1204
M4300-D16-W12	43.00	MD-160-P	WO**1204
M4400-D18-W12	44.00	MD-180-P	WO**1204
M4445-D18-W12	44.45	MD-180-P	WO**1204
M4500-D18-W12	45.00	MD-180-P	WO**1204
M4600-D19-W12	46.00	MD-190-P	WO**1204
M4700-D20-W12	47.00	MD-200-P	WO**1204
M4763-D21-W12	47.63	MD-210-P	WO**1204
M4800-D21-W12	48.00	MD-210-P	WO**1204
M4900-D22-W12	49.00	MD-220-P	WO**1204
M5000-D23-W12	50.00	MD-230-P	WO**1204
M5080-D24-W12	50.80	MD-240-P	WO**1204
M5100-D24-W12	51.00	MD-240-P	WO**1204
M5200-D25-W12	52.00	MD-250-P	WO**1204
M5300-D26-W12	53.00	MD-260-P	WO**1204
M5398-D27-W12	53.98	MD-270-P	WO**1204
M5400-D27-W12	54.00	MD-270-P	WO**1204
M5500-D28-W12	55.00	MD-280-P	WO**1204

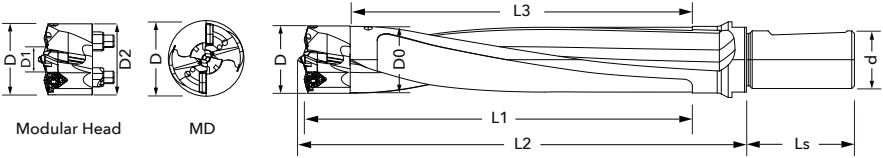
Insert pages :

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KCNM...10D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

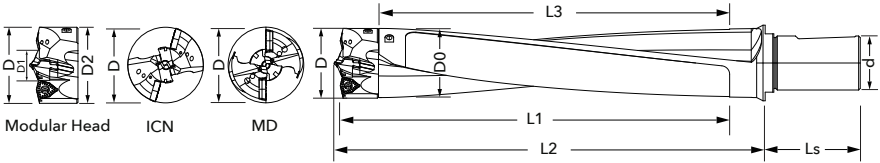
Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
M3800-D16-W10	W37-32-10D	37.5	37	32	412	443	387	60	K14-16.9	KCNM040120	T15
M3810-D16-W10		37.5	37	32	412	443	387	60			
M3900-D18-W10		37.5	37	32	412	443	387	60			
M3920-D18-W10		37.5	37	32	412	443	387	60			
M3970-D18-W10		37.5	37	32	412	443	387	60			
M4000-D18-W10	W39-50-10D	39.5	39	50	425	480	400	60	K17-20		
M4100-D19-W10		39.5	39	50	425	480	400	60			
M4128-D19-W10		39.5	39	50	425	480	400	60			
M4200-D19-W10	W41-50-10D	41.5	41	50	455	500	430	80	K14-16.9		
M4300-D16-W12		41.5	41	50	455	500	430	80			
M4400-D18-W12		41.5	41	50	455	500	430	80			
M4445-D18-W12		41.5	41	50	455	500	430	80			
M4500-D18-W12	W44-50-10D	44.5	44	50	485	530	459	80	K17-19.9		
M4600-D19-W12		44.5	44	50	485	530	459	80			
M4700-D20-W12		44.5	44	50	485	530	459	80			
M4763-D21-W12		44.5	44	50	485	530	459	80			
M4800-D21-W12		47.5	47	50	510	550	475	80			
M4900-D22-W12	W47-50-10D	47.5	47	50	510	550	475	80	K20-26		
M5000-D23-W12		47.5	47	50	510	550	475	80			
M5080-D24-W12	W50-50-10D	50.3	49.8	50	530	570	495	80			
M5100-D24-W12		50.3	49.8	50	530	570	495	80			
M5200-D25-W12		50.3	49.8	50	530	570	495	80			
M5300-D26-W12		50.3	49.8	50	530	570	495	80			
M5398-D27-W12	W53-50-10D	53.4	53	50	550	590	515	80			
M5400-D27-W12		53.4	53	50	550	590	515	80			
M5500-D28-W12		53.4	53	50	550	590	515	80			



KCNM...10D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

Specification	Drilling Dia.	Centre Drill	Side Insert
P5600-D20-W15	56.00	MD-200-P	WO**1503
P5700-D21-W15	57.00	MD-210-P	WO**1503
P5800-D22-W15	58.00	MD-220-P	WO**1503
P5900-D23-W15	59.00	MD-230-P	WO**1503
P6000-D24-W15	60.00	MD-240-P	WO**1503
P6100-D25-W15	61.00	MD-250-P	WO**1503
P6200-D26-W15	62.00	MD-260-P	WO**1503
P6300-D27-W15	63.00	MD-270-P	WO**1503
P6400-D28-W15	64.00	MD-280-P	WO**1503
P6500-ICN29-W15	65.00	ICN-290-P	WO**1503
P6600-ICN30-W15	66.00	ICN-300-P	WO**1503
P6700-ICN31-W15	67.00	ICN-310-P	WO**1503
P6800-ICN32-W15	68.00	ICN-320-P	WO**1503
P6900-ICN33-W15	69.00	ICN-330-P	WO**1503
P7000-ICN34-W15	70.00	ICN-340-P	WO**1503
P7100-ICN35-W15	71.00	ICN-350-P	WO**1503
P7200-ICN36-W15	72.00	ICN-360-P	WO**1503
P7300-ICN37-W15	73.00	ICN-370-P	WO**1503
P7400-ICN38-W15	74.00	ICN-380-P	WO**1503
P7500-ICN39-W15	75.00	ICN-390-P	WO**1503
P7600-ICN40-W15	76.00	ICN-400-P	WO**1503
P7700-ICN41-W15	77.00	ICN-410-P	WO**1503
P7800-ICN42-W15	78.00	ICN-420-P	WO**1503
P7900-ICN43-W15	79.00	ICN-430-P	WO**1503
P8000-ICN44-W15	80.00	ICN-440-P	WO**1503

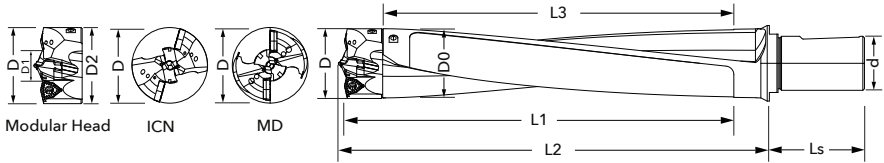
Insert pages :

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KCNM...10D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

Specification	Drilling Holder	Dimensions							Accessories		
		D2	D0	d	L1	L2	L3	Ls			
P5600-D20-W15	B53-50-10D	55	53	50	619	642	585	80	K20-26	KCNM050100	T20
P5700-D21-W15		56	53	50	619	642	585	80			
P5800-D22-W15		57	53	50	619	642	585	80			
P5900-D23-W15	B58-50-10D	58	58	50	674	576	640	80	K27-32	KCNM050100	T20
P6000-D24-W15		59	58	50	674	576	640	80			
P6100-D25-W15		60	58	50	674	576	640	80			
P6200-D26-W15		61	58	50	674	576	640	80			
P6300-D27-W15		62	58	50	674	576	640	80			
P6400-D28-W15	63	58	50	674	576	640	80				
P6500-ICN29-W15	B64-50-10D	64	64	50	745	768	710	80	K33-38	KCNM050100	T20
P6600-ICN30-W15		65	64	50	745	768	710	80			
P6700-ICN31-W15		66	64	50	745	768	710	80			
P6800-ICN32-W15		67	64	50	745	768	710	80			
P6900-ICN33-W15		68	64	50	745	768	710	80			
P7000-ICN34-W15		69	64	50	745	768	710	80			
P7100-ICN35-W15		70	64	50	745	768	710	80			
P7200-ICN36-W15	B71-50-10D	71	71	50	845	865	805	80	K39-45	KCNM050100	T20
P7300-ICN37-W15		72	71	50	845	865	805	80			
P7400-ICN38-W15		73	71	50	845	865	805	80			
P7500-ICN39-W15		74	71	50	845	865	805	80			
P7600-ICN40-W15		75	71	50	845	865	805	80			
P7700-ICN41-W15		76	71	50	845	865	805	80			
P7800-ICN42-W15		77	71	50	845	865	805	80			
P7900-ICN43-W15		78	71	50	845	865	805	80			
P8000-ICN44-W15	79	71	50	845	865	805	80				

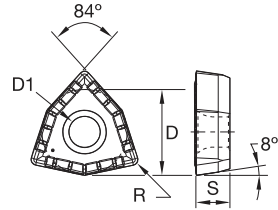


WOMT...W...

Grade overview

NP5330

-First choice in normal conditions in ISO P and K



Unit: mm

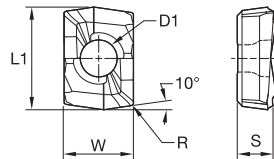
Specification	Dimensions			
	D	D1	R	S
WOMT080308-W5-D33	8	3.4	0.8	3.75
WOMT100308-W5-D39	10	4.4	0.8	3.75
WOMT120408-W5-D42	12	4.4	0.8	4.75
WOMT150508-W5-D55	15	5.5	0.8	5.25
WOMT080308-W6-D33	8	3.4	0.8	3.75
WOMT100308-W6-D39	10	4.4	0.8	3.75
WOMT120408-W6-D42	12	4.4	0.8	4.75
WOMT150508-W6-D55	15	5.5	0.8	5.25
WOMT080308-W7-D33	8	3.4	0.8	3.75
WOMT100308-W7-D39	10	4.4	0.8	3.75
WOMT120408-W7-D42	12	4.4	0.8	4.75
WOMT150508-W7-D55	15	5.5	0.8	5.25

AOMT...

Grade overview

NP5330

-First choice in normal conditions in ISO P and K



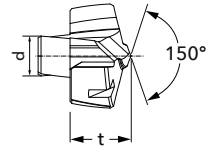
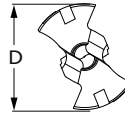
Unit: mm

Specification	Dimensions				
	W	L1	D1	R	S
AOMT040304	7.26	10.76	2.85	0.4	3.79



MD.....*

**Centre Drill
For CombiHead ICN/KCN**

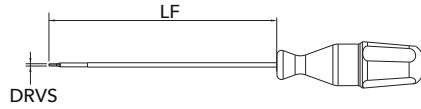


Unit: mm

Specification	Dimensions		
	D	d	t
MD-140-*	14	6	8.1
MD-150-*	15	6	8.7
MD-160-*	16	8	8.8
MD-170-*	17	8	9.9
MD-180-*	18	8	10.5
MD-190-*	19	8	11.0
MD-200-*	20	8	11.6
MD-210-*	21	8	12.1
MD-220-*	22	10	12.7
MD-230-*	23	10	13.3
MD-240-*	24	12	13.9
MD-250-*	25	12	14.5
MD-260-*	26	12	14.5
MD-270-*	27	12	15.5
MD-280-*	28	12	15.5



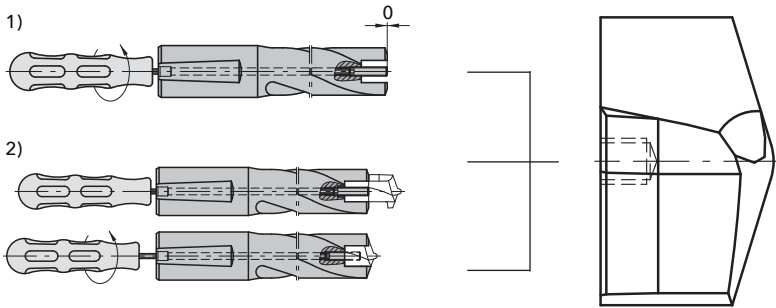
Wrench for KCN Drills



Unit: mm

Specification	DRVS	LF
1.5mm X 185	1.5mm	185
1.5mm X 225	1.5mm	225
1.5mm X 297	1.5mm	297
1.5mm X 351	1.5mm	351
2mm X 210	2mm	210
2mm X 260	2mm	260
2mm X 343	2mm	343
2mm X 405	2mm	405
2.5mm X 240	2.5mm	240
2.5mm X 295	2.5mm	295
2.5mm X 393	2.5mm	393
2.5mm X 459	2.5mm	459
3mm X 265	3mm	265
3mm X 330	3mm	330
3mm X 439	3mm	439
3mm X 513	3mm	513
T5 X 156	T5	156
T5 X 188	T5	188
T5 X 290	T5	290
T6 X 156	T6	156
T6 X 188	T6	188
T6 X 290	T6	290

Mounting the KCN Drill Head



Inserts (<32mm) without Connector Pin

- 1) Use the screwdriver to set the threaded pin:
 - for inserts up to \varnothing 32mm, flush with the drill face.
 - for inserts bigger \varnothing 32mm, set 2mm below the drill face.
- 2) Tighten the insert using the screwdriver to fit securely in the insert seat.

To change the insert, turn the clamping screw anti-clockwise until the insert is released.

Repair of Damaged Threaded Pin

In the event that the central threaded pin becomes damaged, it can be removed after severing it in the tool body. To do this, drill beneath the insert seat in the tool body. The insert and threaded pin can then be removed.

NOTE: For inserts without a connector pin, avoid jamming during mounting through precise positioning.



Material Groups

Recommended Machining Conditions

Material Group	Vargus No.	Heat Treatment	Vc[m/min]			Metric System (F mm/r)			
			min.	init	max.	28.00-31.74	31.75-35.99	36.00-44.99	45.00-55.00
P	2	S	90	190	230	0.160-0.280	0.160-0.280	0.200-0.360	0.200-0.400
		U	71	130	170	0.160-0.280	0.160-0.280	0.200-0.360	0.200-0.400
		I	50	80	110	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
	3	S	90	180	230	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
		U	70	120	170	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
		I	50	70	106	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
	4	S	90	140	220	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
		U	70	110	160	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
		I	50	80	110	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
	5	S	90	130	210	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
		U	70	100	150	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
		I	50	70	100	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400
6	S	90	90	180	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400	
	U	75	75	120	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400	
	I	60	60	100	0.160-0.280	0.160-0.280	0.200-0.320	0.200-0.400	
M	1	S	110	110	135	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320
		U	70	70	90	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320
		I	50	50	65	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320
	2	S	100	100	135	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320
		U	60	60	90	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320
		I	50	50	65	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320
	3	S	90	90	135	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320
		U	60	60	90	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320
		I	40	40	65	0.130-0.250	0.130-0.250	0.160-0.280	0.160-0.320



Material Groups

Recommended Machining Conditions

Material Group	Vargus No.	Heat Treatment	Vc[m/min]			Metric System (F mm/r)			
			min.	init	max.	28.00-31.74	31.75-35.99	36.00-44.99	45.00-55.00
K	1	S	170	170	230	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
		U	120	120	160	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
		I	70	70	90	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
	2	S	160	160	220	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
		U	110	110	160	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
		I	70	70	100	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
	3	S	150	150	210	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
		U	100	100	150	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
		I	60	60	90	0.180-0.300	0.180-0.300	0.216-0.360	0.240-0.420
N	1	S	240	240	360	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
		U	160	160	240	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
		I	100	100	160	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
	2	S	220	220	360	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
		U	150	150	240	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
		I	100	100	160	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
	3	S	200	200	360	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
		U	140	140	240	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
		I	90	90	160	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
	4	S	220	220	260	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
		U	140	140	170	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320
		I	90	90	110	0.120-0.200	0.120-0.200	0.144-0.280	0.160-0.320



Material Groups

Recommended Machining Conditions

Material Group	Vargus No.	Condition	Cutting Speed – vc Range – m/min				Feed Rate (fz) by Diameter				
			min.	Starting Value	max.	Ø	28.00-31,74	31,74-35,99	36,00-44,99	45,00-55,99	56,00-80,00
P	1	S	115	235	290	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		U	90	160	215	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		I	65	100	140	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
	2	S	90	190	230	mm/r	0,160-0,280	0,160-0,280	0,200-0,360	0,200-0,400	0,200-0,450
		U	71	130	170	mm/r	0,160-0,280	0,160-0,280	0,200-0,360	0,200-0,400	0,200-0,450
		I	50	80	110	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
	3	S	90	180	230	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
		U	70	120	170	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
		I	50	70	106	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
	4	S	90	140	220	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
		U	70	110	160	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
		I	50	80	110	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
	5	S	90	130	210	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
		U	70	100	150	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
		I	50	70	100	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
	6	S	70	90	180	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
		U	50	75	120	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
		I	40	60	100	mm/r	0,160-0,280	0,160-0,280	0,200-0,320	0,200-0,400	0,200-0,450
M	1	S	60	110	135	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		U	40	70	90	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		I	30	50	65	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
	2	S	60	100	135	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		U	40	60	90	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		I	30	50	65	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
	3	S	50	90	135	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		U	40	60	90	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		I	25	40	65	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360



Material Groups

Recommended Machining Conditions

Material Group	Vargus No.	Condition	Cutting Speed – vc. Range – m/min				Feed Rate (fz) by Diameter				
			min.	Starting Value	max.	Ø	28.00-31,74	31,74-35,99	36,00-44,99	45,00-55,99	56,00-80,00
K	1	S	90	170	230	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
		U	60	120	160	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
		I	40	70	90	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
	2	S	90	160	220	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
		U	60	110	160	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
		I	40	70	100	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
	3	S	90	150	210	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
		U	60	100	150	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
		I	35	60	90	mm/r	0,180-0,300	0,180-0,300	0,216-0,360	0,240-0,420	0,300-0,480
N	1	S	150	240	360	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		U	100	160	240	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		I	60	100	160	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
	2	S	150	220	360	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		U	100	150	240	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		I	60	100	160	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
	3	S	150	200	360	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		U	100	140	240	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		I	60	90	160	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
	4	S	150	200	360	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		U	100	140	240	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		I	60	90	160	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
	5	S	150	200	360	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		U	100	140	240	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		I	60	90	160	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
	6	S	150	200	360	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		U	100	140	240	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		I	60	90	160	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400



Material Groups

Recommended Machining Conditions

Material Group	Vargus No.	Condition	Cutting Speed – vc. Range – m/min				Feed Rate (fz) by Diameter				
			min.	Starting Value	max.	Ø	28.00-31,74	31,74-35,99	36,00-44,99	45,00-55,99	56,00-80,00
N	7	S	110	220	260	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		U	70	140	170	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
		I	45	90	110	mm/r	0,120-0,200	0,120-0,200	0,144-0,280	0,160-0,320	0,200-0,400
S	1	S	25	50	75	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		U	20	40	60	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		I	15	30	50	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
	2	S	20	40	60	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		U	15	30	45	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		I	12	25	35	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
	3	S	20	40	60	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		U	15	30	45	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		I	12	25	40	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
	4	S	20	40	60	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		U	15	30	45	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360
		I	12	25	40	mm/r	0,130-0,250	0,130-0,250	0,160-0,280	0,160-0,320	0,200-0,360



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